<110> Barash et al.

<120> Signal Transduction Pathway Component Polynucleotides, Polypeptides, Antibodies, and Methods Based Thereon

<130> PT086P1

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<141> 2001-09-20

<150> 60/234,997
<151> 2000-09-25

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<213> Homo sapiens

<220>
<221> SITE
<222> (24)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (176)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1323)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1900)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1968)
<223> n equals a,t,g, or c

<400> 16
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ctggtcactt ccgaggcgtc ctactacaag agtctgaacc tgctcgtgtc ccacttcatg 120
gagaacgagc ggataaggaa gatcctgcac ccgtccgagg cgcacatcct cttctncaac 180
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gagaacatcg tcatctctga cgtgtgtgac atcgtgtacc gttatgcggc cgaccacttc 300
tctgtctaca tcacctacgt cagcaatcag acctaccagg agcggaccta taagcagctg 360
ctccaggaga aggcagcttt ccgggagctg atcgcgcata ggagctcgac cccaagtgca 420
gggggctgcc cttctcctcc ttcctcatcc tgcctttcca gaggatcaca cgcctcaagc 480
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tgagccgcac ggaacagatg atcagcattc agaagaagat ggakttcaag atcaaktcgg 660
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gccccaagac ytcccggacc ctgaggacca agaagctctt ccacgaaatt tacctcttcc 780
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tccccaggtg gcaggatctg gcttggggtg cccggccctc atccctgccc acgcatrrgt 1500
gctcatgtgt cttggcccct tgctygcaaa ctggataaag ggtgcccaag cctctcctga 1560
tgcatttgta aacaagaagg tttcagcagt attacaccac ctccctcatg cctccgaggg 1620
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cccagctgcc tctgcccacc cttccccagg cctctgccan cctctggctg cacggtcagg 1920
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tgatgggctg gatgtaactt gtgtcttcta gccscttaag gagcccaggt gttttaagga 2040
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ggctgcatta aaagaagcat catatataaa ataaaraaaa aaaaaaaaaa aaaactcggg 2160
gggggggccc ggta 2174

<210> 17
<211> 719
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (719)
<223> n equals a,t,g, or c

<400> 17
ggcacgagcc gcctggccgg gcgtagacgc ggtggcagag ccgcgcggcg ctggaaggag 60
ntggcggacg gcgggacctc ggcggactcg catggaggag gagggtgtga aggaarccgg 120
tgagaagcct cggggagcac agatggtgga caaggctggc tggatcaaga agagcagtgg 180
gggcctcctg ggtttctgga aagaccgata tctgctcctc tgccaggccc agctgctggt 240
ctatgagaat gaggatgatc agaagtgtgt ggagactgtg gagctgggca gctatgagaa 300
gtgccaggac cttcgtgccc tcctcaagcg aaaacaccgc tttatcctgc tgcgatcccc 360
agggaacaag gtcagcgaca tcaaattcca ggcacccacc ggggaggaga aggaatcctg 420
gatcaaagcc ctcaatgaag ggattaaccg aggcaaaaac aaggctttcg atgaggtaaa 480
ggtggacaag agctgcgccc tggagcatgt gacacgggac cgggtgcgag ggggccagcg 540
acgccggcca ccaacgagag tccacctgaa ggargtggcc agtgcagctt ctgacggtct 600
tctgcgcctg ggatcttgat gttccggaac agtgggccac cagtgtttgc ccccagcaat 660
catgtcagtg taagcccaac ctcggggaga acaccccggg cccctcatgg cctcctaan 719

<210> 18
<211> 356
<212> DNA
<213> Homo sapiens

<400> 18
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ggaaagtcca tcagcttgat aatggaggag aacaatgact ccacggagaa cccccaacaa 120
ggccaagggc ggcagaatgc catcaagtgt gggtggctga ggaagcaagg aggctttgtc 180
aagacttggc atactcgctg gtttgtgctc aaggggatc agctctatta tttcaaagat 240
gaagatgaaa ccaagccctt ggaatatttg acaacgtctg gagacagtgt ctggcttgtc 300
macagttggg gaagatacca cagatatctc gtgggtagaa gccggggtgc atttaa 356

<210> 19
<211> 1386
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (73)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (133)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1135)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1219)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (1317)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1374)
<223> n equals a,t,g, or c

<400> 19
ctgagctgct cgggaatcca ccggaatatc ccccaggtca gcaaggtgaa gtccgtccgc 60
ctggacgcct ggnaggaggc ccaagtggag ttcatggcct cccacgggaa cgacgccgcg 120
agagccaggt ttnagtccaa agtaccctcc ttctactacc ggcccacgcc ctccgactgc 180
cagctccttc gagagcagtg gatccgggcc aagtacgagc gacaggagtt catctacccg 240
gagaagcagg agccctactc ggcagggtac cgtgagggtt ttctctggaa gcgtggccgg 300
gacaacgggc agtttttgag ccggaagttt gtgctgacag aacgagaggg tgctctgaag 360
tatttcaaca gaaatgatgc caaggagccc aaggccgtga tgaagatcga gcacctgaac 420
gccaccttcc agccggccaa gatcggccac ccccacggcc tgcaggtcac ctacctgaag 480
gacaacagca cccgtaacat cttcatctac catgaggacg ggaaggagat tgtggactgg 540
ttcaatgcac tccgagctgc tcgcttccac tacctgcagg tggcattccc aggggccagc 600
gacgcagatc tggtgccaaa gctctccagg aactacctga aggaaggcta catggagaag 660
acggggccca agcaaacgga aggcttccgg aagcgctggt tcaccatgga tgaccgcagg 720
ctcatgtact tcaaagaccc cctggacgcc ttcgcccgag ggaagtctt cattggcagc 780
aaggagagtg gctacacggt gctgcatggg ttcccgccgt ccacccaggg ccaccactgg 840
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tccgaccaga gggagtgggt ggcggccttc cagaaggcgg tggacaggcc catgctgccc 960
caggagtacg catggaggcg cacttcaagc ataaacctta gcgagtgcgg ctggaggacc 1020
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ccctgggcyt gattytctna accccgtcat gctgcttgct gaccamaccc agccaamctg 1260
gcccttcctg acccggggsc cccttttcctc caggggccca atctggcttc cgagctnaag 1320
acacaaggcc cccaagagcc cggccaacca cggttgtggg gaactttcaa ggcnttaacg 1380
caaaag 1386

<210> 20
<211> 1114
<212> DNA
<213> Homo sapiens

<400> 20
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gcggtgcagc cgggtcgcct tccagcccgt ccgcctcccg accagggccc gcgccccgtc 120
ccgcctctct cccgcccagc caaatgcagg ccgccgccct ccctgaggag atccgttggc 180
tcctggaaga tgctgaagag tttctggcag aaggtttgcg gaatgagaac ctcagcgctg 240
ttgcaaggga tcacagacca tattctacgg ggctttcagc aaatcaaagc caggtactat 300
tgggattttc agccccaagg gggagacatt ggacaggaca gctctgatga taatcacagc 360
gggactcttg gcctgtccct cacatccgat gcaccctttt tgtcagatta tcaggatgag 420
ggaatggaag acatcgtaaa aggagctcaa gaacttgata acgtaatcaa gcaaggatac 480
ttggagaaga aaagcaaaga tcatagtttc tttggatcgg agtggcagaa gcgatggtgt 540
gttgtcagca gaggtctctt ctactactat gctaatgaga agagcaagca gcccaaaggg 600
accttcctca ttaagggcta cagtgtacgg atggcccccc acctgcgaag agattccaag 660
aaagaatcct gctttgaact gacctcccag gataggcgca gctatgagtt tacagctact 720
agtccagcag aagccagaga ctgggtggat caaataagtt tcttgttaaa ggatctgagc 780
tccttaacca ttccatatga agaggatgag gaggaagaag aaaaagaaga gacatatgat 840
gatattgatg gttttractc cccargttgt ggttcccagt gcagacccac tatctkgcct 900
gggagtktgg ggataaaaga gcctacagag gagaaagaag aagaagatat ttatgaaagt 960
cttgccagat gaagagcatg atctagaaga ggatgagagt ggcactcgac gaaaaggaga 1020
ctatgccagt taactaccag gggcctatgg ggattgccat ggtgaccagc cagatgaact 1080
gtccttccaa cggggtggac ctgcatcccg tatt 1114

<210> 21
<211> 2947
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (383)
<223> n equals a,t,g, or c

<400> 21
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atttctggta aaactgaaag caagaaaagc agggtgctag cccctgtggs actgagggtg 120
gagkctgggg gagtttgggt gccatcctcc agtgacagat ggatggacct ttcatctaag 180
agaaaggagg agacacgttg gcaaatcagc ctcaagccta agattgcttg tgaagcaatc 240
ataaggagga acaaaaacag acacaaaaac agagggaaag agtgaaaaga caagaagggc 300
gcaaactgtg acagactcac cgcttcacta actactcact taaactggaa gcaaaatgtc 360
cctaaaattg ccaaggaact ggngatttca acctgaaagt ggaggctgcg aaaatagctc 420
ggtcaaggag tgtgatgact ggcgagcaga tggctgcctt ccatccatcg tccaccccca 480
acccgctgga gaggcccatc aagatgggct ggctgaagaa gcagaggtcc atcgtgaaga 540
actggcagca gaggtacttt gtgctgaggg cgcagcagct ctactactac aaggatgaag 600
aggacacgaa gccccagggs tgcatgtatc taccaggatg tacaatcaag gagatcgcca 660
caaacccaga agaagctggg aagtttgtct ttgaaatcat tccagcctca tgggaccaga 720
atcgcatggg acaggactcc tatgtcctca tggccagctc tcaggcggag atggaggagt 780
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cctttgacag agacacagat gtgcacactg tggcttccct gttaaagctc tacctccgag 1080
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aattatgacg tttgggctaa agtggtgagg ctcaatgaag aactggagaa ggaaaagaag 2160
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caggacttct ccaacttact attagactaa accagaacaa gcaacaaact gtatttatgc 2880
aagcaaaatt gatgagaaaa ttatattcaa ataaagcaaa aattaaaaaa aaaaaaaaaa 2940
aaaaaaa 2947

<210> 22
<211> 2451
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (2440)
<223> n equals a,t,g, or c

<400> 22
cagagccata gcaggctgct gtctcacaga gcgagaaggt gtcaggagca gcccagttgt 60
gtctctctct ctacctctgt gaagggcgcg aatgggcaga gcagaacttc tagaagggaa 120
gatgagcacc caggatccct cagatctgtg gagcagatcc gatggagagg ctgagctgct 180
ccaggacttg gggtggtatc acggcaacct cacacgccat gctgctgaag ctcttctcct 240
ctcaaatgga tgtgacggca gctaccttct gagggacagc aatgagacca ccgggctgta 300
ctctctctct gtgagggcca aagattctgt taaacacttt catgttgaat atactggata 360
ttcatttaaa tttggcttta atgaattctc atctttgaag gattttgtca agcattttgc 420
aaatcagcct ttgattggaa gcgagacagg cactctgatg gttctaaaac atccctaccc 480
aagaaaagtg gaagaaccct ccatttatga atctgtccgg gttcacacag caatgcagac 540
aggaagaaca gaagatgacc ttgtgcccac agcaccttct ctgggcacca aagaaggtta 600
cctcaccaaa cagggaggcc tggtcaagac ctggaaaaca agatggttta ctctgcacag 660
gaatgaactg aaatacttca aagaccagat gtcaccagaa ccaattcgga tcctagacct 720
aacagaatgt tcagctgtac aattcgatta ttcacaagaa agggtaaact gtttttgttt 780
ggtatttcca ttcaggacat tttatctctg tgcaaagacc ggagtagaag ctgatgagtg 840
gatcaagata ttacgctgga aattgtcaca aataagaaaa cagctcaacc aaggggaagg 900
cacgatccga tctcggtcgt tcatctttaa atagatcttt cttgccaagg aatgctctgg 960
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accacgttgc tgactcacgt tgctgccctt ccatgatgtt gccatctcct tgagaacact 1140
gaagcaatca ccattctgat agaaagtgct taaaccacca ctcttaggtc tgctcactct 1200
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atattcagat agaaaacatc aaatattttc aggggagagg ttttttttct taatttttcc 1440
ccctttatac aaaaaaaaaa gaacatttcc aaaactaaaa tagaaaatgc ttgtggcatt 1500
tattttctct ttttaaaagg ttcagaaatt tggcaggtcc tttgcttcta atgacaaaac 1560
tgtgagagct agatgtccta tgggcaatta ggtagtataa taaaggtaaa tgaaggtaca 1620
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aattgagaaa gggtgataaa gtaatagata acttttagtt taataataat tattgttatt 1740
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agagcctgag agtaaaaaga ttatgctgca aagctatgat ataaactgct cttgcagtcc 2220
aaagggatac ctgattaaag aagtttctta tttaaacatc tcagacgcaa aaattacatt 2280
aaatttttgt atatttcaac aacattttaa atgtattttg ttatgtttgt attatatagg 2340
ataaagcaaa tgtcaagtta aaatgtattg tgttgtttgt aaagtaagaa gttacaggcg 2400
tgagccaccc gcacccggca gagttttata atgcaaaatn aactaatatt c 2451

<210> 23
<211> 907
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (34)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (625)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (787)
<223> n equals a,t,g, or c

<400> 23
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cccaacccga acaagctggc cgcctgccac cccggtgcct tccgcagcgc gcgctggacc 120
tgctgcctcc aggctgagcg ytcagccgcc ggctgcagcc gtacacactc agctgtcacc 180
ctgggggact ggagtgaccc actggatcct gatgctgagg cccagacagt gtatcggcag 240
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actctggagg cagacacagg ggcctgtcct gaggtcctgg cccggcaaag agcagcaact 360
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gaaggaggag caagagccag ggggcctctt cagcgcatcc tcgccccggg agtctcctgt 540
ctccttggac ctctttgatt ctgtggtttg gaggctccca gagacgtgcc tagtcctgtg 600
tgccttgagt ccagaactca gggcntggaa acccctttggc aggggccagc cttgcactga 660
gtgaaacttg ccctctggct tgattcagac tggagtggat aggataagga acctgactta 720
tttgactgag actggggtct ctacttcacc aaactggcct ctatccatac caaggaggcc 780
agcctgnccc tgagctgctg gatacagctg gacctgaatt cctgatgccc atgtaatgtt 840
gttgccccag atgggcacta aatggcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 900
aaaaaaa 907

<210> 24
<211> 2901
<212> DNA
<213> Homo sapiens

<400> 24
cgactggagg ggcgggggag tcacctgcga gcggctgcgc tggcggccag cccgcccacc 60
gcgtctggat cgcgccggct gcgcggggct gcggacagca cacaccctgg aaggccccgg 120
cggggaacgg gcagagtccg cgccctgcgt ccgcgaccag gaggatcgga ccttcgcctt 180
cgctgtcgcc gccgccgmcg cccgcggccg tcggggctat tagtgaaaga tggtggatcg 240
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agctggtcaa cctttaacta tacctggacg agttcttatt ggagaaggag tattgactaa 360
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<210> 25
<211> 946
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (889)
<223> n equals a,t,g, or c

<400> 25
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<210> 26
<211> 1569
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4)
<223> n equals a,t,g, or c

<220>
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<222> (17)
<223> n equals a,t,g, or c

<220>
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<222> (1240)
<223> n equals a,t,g, or c

<220>

<221> SITE
<222> (1258)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1529)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1565)
<223> n equals a,t,g, or c

<400> 26
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cccaccccac ggcctgtgcc catgaagcgc cacatcttcc gytaccacct gtgcctgcac 540
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ctcanaaca 1569

<210> 27
<211> 797
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (736)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (750)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (780)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (792)
<223> n equals a,t,g, or c

<400> 27
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aagatcacag caaaagaaga aaatgtcacc aawtaattac aargaacggc tttttgtttt 240
gaccaaaaca aacctttcct actatgaata tgacaaaatg aaaaggggca gcagaaaagg 300
wtccattgaa attaagaaaa tcagatgtgt ggagaaagta aatctcgagg agcagacgcc 360
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cgcaatatga cngcact 797

<210> 28
<211> 911
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (874)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (896)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (909)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (910)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (911)
<223> n equals a,t,g, or c

<400> 28
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ggtatgtggc agctgctttg gctgtcatga gaaatgtgac tcagcagatc aacgaacgca 120
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agggcgagga catcctagac aggagctcgg agctgatcta cactggggag atggcctgga 240
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agtcgcaggt ctttgagttc accgaaccca agcgcagcca gtcaccattc tggcaaaact 780
tcagcaggtt aacccccttc aaaaaatgat acctacaggg aggcagataa ttttaaaata 840
aagtaaataa aattawaaaa aaaaaaaagg gggnccgttt ttaaagggtt ccaagnttac 900

gttccccgnn n 911

<210> 29
<211> 2047
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2042)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2046)
<223> n equals a,t,g, or c

<400> 29
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tccgcagggc tggctgacca tcaacaacat cagcctgatg aaaggcggct ccaaggagta 180
ctggtttgtg ctgactgccg agtcactgtc ctggtacaag gatgaggagg agaaagagaa 240
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caacaagcac gtcttcgcca tcttcaacac ggagcagaga aacgtctaca aggacctgcg 360
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angggng 2047

<210> 30
<211> 876
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (730)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (746)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (791)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (825)
<223> n equals a,t,g, or c

<400> 30
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atgtctccaa ctatagtctg gaaagtggac atgatcagaa gaagaaatat gtgtttcagc 180
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<210> 31
<211> 567
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (236)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (238)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (542)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (556)
<223> n equals a,t,g, or c

<400> 31
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gtacttattg attccattta caaagtgact gagggccggc agtctgaaat attccncntt 240
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caagtacctg atggctggca tcagtgatga agactcccttt gccaaaaggc agaggaccca 420

tgaccaatgg gtgaagcaga cctttgagga agctgataag aatggtgacg gcttgctgaa 480
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<210> 32
<211> 957
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (780)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (821)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (893)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (899)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (952)
<223> n equals a,t,g, or c

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gttgagagag aacagagtga gagattcaat gtgtatttga tgccatctcc taacttagat 660
gtacatggcg aatgtgcctt gcagattaca tatgagtata tctgtctttg ggacgtccag 720
aatcccagag tcaaactcat ctcttggccg ctaagcgccc tgcggcggtt atgggacgtn 780
gatactacgt ggttcacttt tgagggcagg gaggatgtgt ngagactggg tgaaggggct 840
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<210> 33
<211> 1070
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (968)
<223> n equals a,t,g, or c

<400> 33
gaggagctca ccctggagat cctggatcgc cggaacgtgg gcatcaggga gaaggactat 60

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tggacctgct ttgaggtcaa cgagagggag gaggcagagc gccccctgca ctttgcggag      120
aaggtgctgc ccatcctgca cgggctgggc acggacagcc acctggtggt gaagaagcac      180
caggccatgg aggccatgct gctgtacctg gccagccgtg tcggtgacac caagcatggc      240
atgatgaagt tccgtgagga ccgcagcctc ctgggcctgg gcctgccctc aggtggcttc      300
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caccggcctg agaaggagtg gcctattaag agtctcaaag tctacctggg agtgaagaag      420
aaactcaggc cacccacctg ctggggcttc acagtggtgc atgagacaga gaaacatgag      480
aagcagcagt ggtacctctg ctgtgacaca cagatggagc tccgggagtg gttcgctacc      540
tttctgtttg tgcagcatga cggcctggtg tggccctcag agccctcacg cgtgtcccgg      600
gcagtgcctg aggtccggct gggtagtgtg tcactgatcc cccttcgagg tagtgaaaat      660
gaaatgcgcc ggagtgtggc tgccttcacc gcggaccctc tgtctcttct gcgcaacgtc      720
tgagcacagg agcccatcct tggctctagg attccgccgc tggaagcctt ctgttcagac      780
accccttatg ctccaaggcc tgatgtgagc cagcgggggg tgcatgggaa actgcacccc      840
acaacccaca tcctccatcc tgactgcagc atggggttcc ccggcagggt gggaggcagc      900
aggggtcagc ctgggcagga acctctycca actctgtcca ggtgttcaga cctcttggsc      960
caacctgnty amcccaacgg gttcactgtc cttgtggggc tkgaragatg ggcataagtc     1020
aggaacttgg gaggaccacc acctttmara gcgtgaggcc ctggggcctg                1070
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<210> 34
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (94)
<223> n equals a,t,g, or c

<400> 34

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tctaatccgc ccaaaagcag cagcctgagc ctggccagca gcgcctccac catctcctcg       60
ctcagcagcc tkagccccaa gaagcccacc cggnaggtaa acaagatcca cgcctttggg      120
aagagaggca atgcgctcag gagggatccc aaccttcccg tgcacatccg aggctggctt      180
cataagcagg acagctcggg gctccgtctc tggaaacgcc gctggttcgt cctctccggc      240
cattgcctct tttattacaa ggacagccgc gagagagtgt cctaggcagc gtcctgctcc      300
ccagctacaa tattagacca gatgggccgg gagcccccga gggagtccgc ttcaccttca      360
ccgcagagca cccgggcatg aggacctacg ttttggccgc tg                         402
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<210> 35
<211> 353
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (220)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (334)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (347)
<223> n equals a,t,g, or c

<400> 35

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aactctttcc tttggttgtg ctaagaggtg atgcccaagg tgcaccacct ttcaagaact       60
ggatcatgaa caactttatc ctcctggrag aacagctcat caagaaatcc caacaaaaga      120
gaagaacttc tccctcgaac tttaaagtcc gcttctttgt gttaaccaaa gccagcctgg      180
catactttga agatcgtcat gggaagaagc gcacgctgan aggggtccat tgagctctcc      240
cgaatcaaat gtgttgagrt tgtgaaaagt gacatcagca tcccatgcca ctataaatac      300
ccgtttcagg tggtgcatga caacttacct cctnttatgg tgtttgnttc cag              353
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<210> 36
<211> 938
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (877)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (909)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (931)
<223> n equals a,t,g, or c

<400> 36
ggcagagtct ggactgtaag aatatgtctc cagggccagt gtctgctgcg atcgagtccc 60
accttccaag tcctggcatc tcaatgcatc tgggaagcta cctgcattaa gtcaggactg 120
agcacacagg tgaactccag aaagaagaag ctatggccgc agtgattctg gagagcatct 180
ttctgaagcg atcccaacag aaaaagaaaa catcacctct aaacttcaag aagcgcctgt 240
ttctcttgac cgtgcacaaa ctctcctact atgagtatga ctttgaacgt gggagaagag 300
gcagtaagaa gggttcaata gatgttgaga agatcacttg tgttgaaaca gtggttcctg 360
aaaaaaatcc tcctccagaa agacagattc cgagaagagg tgaagagtcc agtgaaatgg 420
agcaaatttc aatcattgaa aggttccctt atcccttcca ggttgtatat gatgaarggc 480
ctctctacgt cttctcccca actgaagaac taaggaagcg gtggattcac cagctcaaaa 540
acgtaatccg gtacaacagt gatctggttc agaaatatca cccttgcttc tggatcgatg 600
ggcagtatct ctgctgctct cagacagcca aaaatgctat gggctgccaa attttggaga 660
acaggaatgg aagcttaaaa cctgggagtt ctcaccggaa gacaaaaaag cctcttcccc 720
caacgcctga ggaggaccag atcttgaaaa agccamtacc gcctgagcca gcagcagcac 780
cagtctccac aagtggagct ggaaaaaggt tgtggcccct tatggattac atgccaatga 840
atgccaaatg attctacagc tgcggaaggt ggatgantat tttatcttgg gaggaaagca 900
actttaccng gtggagagca cgagataaaa nggggcag 938

<210> 37
<211> 206
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (164)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (203)
<223> n equals a,t,g, or c

<400> 37
ggaagttcga gatctggtac aacgcgcgcg aggaggtcta catcgtccag gcgccaactc 60
ctgagattaa agccgcgtgg gtgaatgaaa ttcggaaagt gctgaccagc cagctgcagg 120
cttgtagaga agccagccag caccgggcgc tggagcagtc acanagcctg cccctgccgg 180
ccccgaccag caccagtccc tcnaga 206

<210> 38
<211> 494
<212> DNA

<213> Homo sapiens

<220>
<221> SITE
<222> (230)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (295)
<223> n equals a,t,g, or c

<400> 38
ggagccacag tgaccgccat gggttaggga ggtgtgatgt caggctgttg gggtttagaa 60
gtgaagccaa ggggcctgga caggggaata atgagggaag agaggagact ctcctgaccc 120
tccctcttgc tcccaggcac gatccctgac ccgctacctg ccaatccgga aggaggactt 180
tracctgaag acacatattg agtcatcggg ccatggtgtt gatacctgcn tgcacgtggt 240
gctcagcagc aaggtctgcc gtggctactt ggtcaagatg ggcggcaaga ttaantcatg 300
gaagaagcgc tggtttgttt tcgaccggct caagcgcacc ctttcctatt atgtggacaa 360
gcatgagacg aagctgaagg gagtcatcta tttccaggcc attgaggaag tgtactacga 420
ccacctgcgc agtgcagcca agagcccgaa cccagccctc accttctgcg taaagaccca 480
tgaccggctg tact 494

<210> 39
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (345)
<223> n equals a,t,g, or c

<400> 39
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taactggaga tccagatgtt ttggaatatt acaaaaatga tcatgccaag aagcctattc 120
gtattattga tttaaattta tgtcaacaag tagatgctgg attgacattt aacaaaaaag 180
agtttgaaaa cagctacatt tttgatatca acactattga ccggattttc tacttggtag 240
cagacagcga ggaggagatg aataagtggg ttcgttgtat ttgtgacatc ystgggttta 300
atccaacaga agaaggtaag ttcaagatat tactattcma cytgnaattc ttcttttctg 360
gctacatttc cagaaatgtc attacaattc tttgttattt tagttacaca atataatgtt 420
ttatttttat aata 434

<210> 40
<211> 913
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (758)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (824)
<223> n equals a,t,g, or c

<220>

<221> SITE
<222> (850)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (858)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (869)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (891)
<223> n equals a,t,g, or c

<400> 40
tcctcacgct cccttatgga acaaggcatc caagaggatg agcagctgct ctacgactta 60
naatattatt ctttcttcga cttgaatcct aaatatgatg ctgtccgaat aaaccaactc 120
tatgagcaag ccaggtgggc cattctctta gaagaaattg attgcacaga ggaagaaatg 180
ttgatctttg cagctctaca gtaccacatt agcaaactgt cgttgtctgc tgaaacacag 240
gattttgcag gcgagtccga ggttgatgaa atagaagcgg cgctttctaa tttggaagta 300
accctagaag gtggaaaagc ggacagcctt ttggaggaca ttactgatat ccctaaactt 360
gcagataatc tcaaattatt taggcccaag aagttactac caaaagcttt caaacaatat 420
tggtttatct ttaaagacac atccatagca tactttaaaa ataaggaact tgaacaagga 480
gaaccactag aaaaactaaa tcttagaggc tgcgaagttg tgcccgatgt aaatgtagca 540
ggaagaaaat ttggaatcaa gttactaatc cctgttgccg atggtatgaa tgaaatgtat 600
ttgagatgtg accatgagaa tcaatacscc caatggatgg ctgcctgcat gttggcatcg 660
aagggcaaaa ccatggcaga cagctcctac cagccagagg tcctcaacat cctttcattt 720
ctgaggatga aaaacaggaa ctctgcatct caagtggntt ccagtctcga aaacatggat 780
atgaacccag aatggtttgg gtcaccacgg tgtgcaaaaa gacnccaaat tccaaacagc 840
ttgggcccgn cccggatncc tgggaaggng gcaacccaga aaccggtggg ncccaaaaat 900
tgccccccct ggg 913

<210> 41
<211> 974
<212> DNA
<213> Homo sapiens

<400> 41
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agcagtggga ccctcagcac ctccaccagt atctcctctc agatctcaac cactaccttt 120
gaaagcgcca tcacacctag cgagagcagt ggctatgatt caggagacat cgaaagcctg 180
gtggaccgag agaaagagct ggctaccaag tgcctgcaac ttctcaccca cactttcaac 240
agagaattca gccaggtgca cggcagcgtc agtgactgta agttgtctga tatctctcca 300
attggacggg atcccctctga gtccagtttc agcagtgcca ccctcactcc ctcctccacc 360
tgtccctctc tggtagactc taggagcaac tctctggatc agaagacccc agaagccaat 420
tcccgggcct ctagtccctg cccagaattt gaacagtttc agattgtccc agctgtggaa 480
acaccatatt tggcccgagc aggaaaaaac gaatttctca atcttgttcc agatattgaa 540
gaaattagac caagctcagt ggtctctaag aaaggatacc ttcatttcaa ggagcctctt 600
tacagtaact gggctaaaca ttttgttgtc gtccgtcggc cttatgtctt catctataac 660
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agtgaggacc agcaggccat ggtgaagaca ccaaacacmt ttgctgtctg sacaaagcac 780
cgtggggkcc ttttgcaggc cctcaatgrc aaagacatga acgactggkt gkatgcctty 840
aacccacttc tagctggcac aatacggtca aagctttccc gcagatgccc gagccagtcg 900
aaatactaag tgatctgccg agtgccctca ctcgccttcg agagataaag aaagcgttac 960
ctctcaaaaa aaaa 974

<210> 42
<211> 569
<212> DNA

<213> Homo sapiens

<220>
<221> SITE
<222> (179)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (538)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (550)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (553)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (564)
<223> n equals a,t,g, or c

<400> 42
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gggcgcaccc catcctcaga caataaaaca gtgctgaaag cctccaacat tgaaaccaag 120
caggagtgga tcaagaacat tcgagaagtg attcaagaaa ggatcattca cctgaaagna 180
gctttaaagg agccacttca gctccccaaa acaccagcca aacagaggaa caatagtaag 240
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tccattgctt ctaggacctc tcagaacaca gtggacagtg acaaggatgg caaccttgtt 360
cctcggtggc acctgggacc tggagatcct ttctccactt acgtttagcg cgcatcctgg 420
gacttgtccc tggcagctca mcgggtttag ccgtggcaac gtttgggacc tcccaacaag 480
gactccaaat caaccaacct ctcctttgaa gaactttctc ctgggaaagg gcttggtngt 540
tgggggttgn aancccttg gctnaaaaa 569

<210> 43
<211> 2978
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (28)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2947)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2973)
<223> n equals a,t,g, or c

<400> 43
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gccaaatgaa tgaaccagat tcagaccggc agggcgctgt ggtttaggag gggcctgggg 120
tttctcmcag gaggtttttg kgcttgcgct ggagggctct ggactcccrt ttgcgccagt 180
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agagcaaacg gggccatctg tcaccagggg cttagggaag gccgagccag cctgggtcaa 360
agaagtcaaa ggggctgcct ggaggaggca gcctgtcagc tggtgcatca gaggctgtgg 420
ccaggccagc tgggctcggg gagcgccagc ctgagaggag cgcgtgagcg tcgcgggagc 480
ctcgggcacc atgagcgacg tggctattgt gaaggagggt tggctgcaca aacgagggga 540
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cctgcagtgg accactgtca tcgaacgcac cttccatgtg gagactcctg aggagcggga 780
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ctgcaccacg gcgtttttttt acaacattca actttagtat ttttactatt ataatataat 2880
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aactcgnggg gggcccggtc ccaaattgcc ctntaggg 2978

<210> 44
<211> 883
<212> DNA
<213> Homo sapiens

<400> 44
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gttgctgcga cagagtacta ttttgaagcg ctggaagaag aactggtttg atctgtggtc 180
ggatggtcac ctgatctatt atgatgacca gactcggcag aatatcgagg ataaggtcca 240
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gacaaacaca gcgtatgtgg gctctgcagt catgaccgat gagacatccg tggtttcctc 480
acctccacca tacacggcct atgctgcacc ggcccctgag caggcttatg gctatgggcc 540
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agcagccacg kgcatggcct targgtctct attttgggtc ttctaggggc ctcaaggtct 780

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<210> 45
<211> 3154
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2365)
<223> n equals a,t,g, or c

<400> 45
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tgcccgagcc cagcatccgc artgtcatgc agaagtacct ggaggaccgg ggcgaggtga 120
cctttgagaa gatcttttcc cagaagctgg ggtacctgct cttccgagac ttctgcctga 180
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tgaaggagct gctggcctgc tcgcatccct tctcgaagag tgccactgag catgtccaag 360
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atcgcatcat tgggcgcggg ggctttggcg aggtctatgg gtgccggaag gctgacacag 600
gcaagatgta cgccatgaag tgcctggaca aaaagcgcat caagatgaag caggggggaga 660
ccctggccct gaacgagcgc atcatgctct cgctcgtcag cactggggac tgcccattca 720
ttgtctgcat gtcatacgcg ttccacacgc cagacaagct cagcttcatc ctggacctca 780
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<210> 46
<211> 2909
<212> DNA
<213> Homo sapiens

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<221> SITE
<222> (2902)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2909)
<223> n equals a,t,g, or c

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aaaaaaaaaa aaaaaaaaaa anggggggn 2909

<210> 47
<211> 477
<212> DNA
<213> Homo sapiens

<400> 47
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<210> 48
<211> 1768
<212> DNA
<213> Homo sapiens

<400> 48
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<210> 49
<211> 833
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (420)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (827)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (828)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (833)
<223> n equals a,t,g, or c

<400> 49
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<210> 50
<211> 597
<212> DNA
<213> Homo sapiens

<400> 50
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<210> 51
<211> 1445
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1441)
<223> n equals a,t,g, or c

<400> 51
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ccgagagaag ttggggtctg actagacgct tacggggcct cggaccccgg cgccgcggcg 120

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ntttt 1445

<210> 52
<211> 395
<212> DNA
<213> Homo sapiens

<400> 52
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aagagctgga aacgtcgctt ctttgcactt gatgacttta ccatctgcta cttcaagtgt 180
gagcaggacc gagaaccact gcgcaccata tttcttaagg atgttctgaa gacccatgaa 240
tgtctggtca agtctggtga tctcttaatg agggacaacc tgtttgaaat aataacaagc 300
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<210> 53
<211> 2073
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2041)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2050)
<223> n equals a,t,g, or c

<400> 53
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<210> 54
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (366)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (397)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (409)
<223> n equals a,t,g, or c

<400> 54
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<210> 55
<211> 467
<212> DNA
<213> Homo sapiens

<400> 55
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aacagcctgg cgtccgccac gccaactggg tacatggaaa actcagtctc ctacagcgca 240
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attcctgggg gaactgtctt actgcaggct gccaatagyt acctgcgaga ccagtggttc 360
cattctctgc aatggaagaa aaagatttac aaatataaga aagtgytgag taacccaarc 420
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<210> 56
<211> 2022
<212> DNA
<213> Homo sapiens

<400> 56
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<210> 57
<211> 1558
<212> DNA
<213> Homo sapiens

<400> 57
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<210> 58
<211> 421
<212> DNA
<213> Homo sapiens

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<221> SITE
<222> (368)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (370)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (397)
<223> n equals a,t,g, or c

<400> 58
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tcagcatgca gaggaggccc agctgctgag aggagttgcc tgagagtkac ctttgcatct 240
gcctgtccag ccagcatgga accaaagcgg atcagagagg gctaccttgt gaagaagggg 300
agcgtgttca atacgtggaa acccatgtgg gttgtattgt tagaagatgg rattgaattc 360
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a 421

<210> 59
<211> 2122
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (326)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (428)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (606)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1230)
<223> n equals a,t,g, or c

<400> 59
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attggaaaag tgaaaaaaaa aa 2122

<210> 60
<211> 167
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (154)
<223> n equals a,t,g, or c

<400> 60
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aaaaaaacaa ctggatggca gcccttattt ctcttcatta tcgtagtact ctagatcgaa 120
tgttagattc agtattattg aaagaagaaa atgnagcaac cactgag 167

<210> 61
<211> 857
<212> DNA

<213> Homo sapiens

<220>
<221> SITE
<222> (4)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (25)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (30)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (737)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (774)
<223> n equals a,t,g, or c

<400> 61
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ccaagccatc tgtctgnaac ggcgccaaga ggagtggagt acacacagtg gtancaagaa 780
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<210> 62
<211> 2465
<212> DNA
<213> Homo sapiens

<220>
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<222> (2035)
<223> n equals a,t,g, or c

<220>

<221> SITE
<222> (2267)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2421)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2455)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2462)
<223> n equals a,t,g, or c

<400> 62
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cncca 2465

<210> 63
<211> 963

<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (813)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (855)
<223> n equals a,t,g, or c

<400> 63
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cta 963

<210> 64
<211> 586
<212> PRT
<213> Homo sapiens

<400> 64
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Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val
20 25 30

Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr
35 40 45

Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu
50 55 60

Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe
65 70 75 80

Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr
85 90 95

Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile
100 105 110

Ser Gln Val Cys Asn Leu Gly His Leu Glu Asp Gly Ala Asp Ser Met
115 120 125

Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu Gln Pro Ser Ser Ala Ser
130 135 140

Ser Leu Leu Thr Ala His Ala Ala Ser Ser Ser Leu Pro Arg Asp Asp
145 150 155 160

Pro Asn Thr Asn Ala Val Ala Thr Glu Glu Thr Arg Ser Glu Ser Glu
165 170 175

Leu Leu Phe Leu Pro Asp Tyr Leu Val Leu Ser Asn Cys Glu Thr Gly
180 185 190

Arg Leu His His Thr Ser Leu Pro Thr Arg Cys Asp Ser Trp Ser Asn
195 200 205

Ser Asp Arg Ser Leu Glu Gln Ala Ser Phe Asp Asp Val Phe Val Asp
210 215 220

Cys Leu Gln Pro Leu Pro Ser Ser His Leu Val His Pro Ser Cys His
225 230 235 240

Gly Ser Gly Ala Gln Glu Val Pro Ser Ser Arg Pro Gln Ala Ala Leu
245 250 255

Ile Trp Ser Arg Glu Ile Asn Gly Pro Pro Arg Asp His Leu Ser Ser
260 265 270

Ser Pro Leu Leu Glu Ser Ser Leu Ser Ser Thr Ile Gln Val Asp Lys
275 280 285

Asn Gln Gly Ser Leu Pro Cys Gly Ala Lys Glu Leu Asp Ile Met Ser
290 295 300

Asn Thr Pro Pro Pro Arg Pro Pro Lys Pro Ser His Leu Ser Glu Arg
305 310 315 320

Arg Gln Glu Glu Trp Ser Thr His Ser Gly Ser Lys Lys Pro Glu Cys
325 330 335

Thr Leu Val Pro Arg Arg Ile Ser Leu Ser Gly Leu Asp Asn Met Arg
340 345 350

Thr Trp Lys Ala Asp Val Glu Gly Gln Ser Leu Arg His Arg Asp Lys
355 360 365

Arg Leu Ser Leu Asn Leu Pro Cys Arg Phe Ser Pro Met Tyr Pro Thr
370 375 380

Ala Ser Ala Ser Ile Glu Asp Ser Tyr Val Pro Met Ser Pro Gln Ala
385 390 395 400

Gly Ala Ser Gly Leu Gly Pro His Cys Ser Pro Asp Asp Tyr Ile Pro
405 410 415

Met Asn Ser Gly Ser Ile Ser Ser Pro Leu Pro Glu Leu Pro Ala Asn
420 425 430

Leu Glu Pro Pro Pro Val Asn Arg Asp Leu Lys Pro Gln Arg Lys Ser
435 440 445

Arg Pro Pro Pro Leu Asp Leu Arg Asn Leu Ser Ile Ile Arg Glu His
450 455 460

Ala Ser Leu Thr Arg Thr Arg Thr Val Pro Cys Ser Arg Thr Ser Phe
465 470 475 480

Leu Ser Pro Glu Arg Asn Gly Ile Asn Ser Ala Arg Phe Phe Ala Asn
485 490 495

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Pro Val Ser Arg Glu Asp Glu Glu Ser Tyr Ile Glu Met Glu Glu His
            500                 505                 510

Arg Thr Ala Ser Ser Leu Ser Ser Gly Ala Leu Thr Trp Thr Lys Lys
        515                 520                 525

Phe Ser Leu Asp Tyr Leu Ala Leu Asp Phe Asn Ser Ala Ser Pro Ala
    530                 535                 540

Pro Met Gln Gln Lys Leu Leu Leu Ser Glu Glu Gln Arg Val Asp Tyr
545                 550                 555                 560

Val Gln Val Asp Glu Gln Lys Thr Gln Ala Leu Gln Ser Thr Lys Gln
                565                 570                 575

Glu Trp Thr Asp Glu Arg Gln Ser Lys Val
            580                 585


<210> 65
<211> 416
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (292)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 65
Arg Val Ser Tyr Ser His Gly Leu Arg Lys Glu Leu Leu Lys Ser Ile
  1               5                  10                  15

Trp Tyr Ala Phe Thr Ala Leu Asp Val Glu Lys Ser Gly Lys Val Ser
             20                  25                  30

Lys Ser Gln Leu Lys Val Leu Ser His Asn Leu Tyr Thr Val Leu His
         35                  40                  45

Ile Pro His Asp Pro Val Ala Leu Glu Glu His Phe Arg Asp Asp Asp
     50                  55                  60

Asp Gly Pro Val Ser Ser Gln Gly Tyr Met Pro Tyr Leu Asn Lys Tyr
 65                  70                  75                  80

Ile Leu Asp Lys Val Glu Glu Gly Ala Phe Val Lys Glu His Phe Asp
                 85                  90                  95

Glu Leu Cys Trp Thr Leu Thr Ala Lys Lys Asn Tyr Arg Ala Asp Ser
            100                 105                 110

Asn Gly Asn Ser Met Leu Ser Asn Gln Asp Ala Phe Arg Leu Trp Cys
        115                 120                 125

Leu Phe Asn Phe Leu Ser Glu Asp Lys Tyr Pro Leu Ile Met Val Pro
    130                 135                 140

Asp Glu Val Glu Tyr Leu Leu Lys Lys Val Leu Ser Ser Met Ser Leu
145                 150                 155                 160

Glu Val Ser Leu Gly Glu Leu Glu Glu Leu Leu Ala Gln Glu Ala Gln
                165                 170                 175

Val Ala Gln Thr Thr Gly Gly Leu Ser Val Trp Gln Phe Leu Glu Leu
            180                 185                 190
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Phe Asn Ser Gly Arg Cys Leu Arg Gly Val Gly Arg Asp Thr Leu Ser
        195                 200                 205

Met Ala Ile His Glu Val Tyr Gln Glu Leu Ile Gln Asp Val Leu Lys
    210                 215                 220

Gln Gly Tyr Leu Trp Lys Arg Gly His Leu Arg Arg Asn Trp Ala Glu
225                 230                 235                 240

Arg Trp Phe Gln Leu Gln Pro Ser Cys Leu Cys Tyr Phe Gly Ser Glu
                245                 250                 255

Glu Cys Lys Glu Lys Arg Gly Ile Ile Pro Leu Asp Ala His Cys Cys
            260                 265                 270

Val Glu Val Leu Pro Asp Arg Asp Gly Lys Arg Cys Met Phe Cys Val
        275                 280                 285

Lys Thr Ala Xaa Arg Thr Tyr Glu Met Ser Ala Ser Asp Thr Arg Gln
    290                 295                 300

Arg Gln Glu Trp Thr Ala Ala Ile Gln Met Ala Ile Arg Leu Gln Ala
305                 310                 315                 320

Glu Gly Lys Thr Ser Leu His Lys Asp Leu Lys Gln Lys Arg Arg Glu
                325                 330                 335

Gln Arg Glu Gln Arg Glu Arg Arg Arg Ala Ala Arg Lys Arg Ser Cys
            340                 345                 350

Cys Gly Cys Ser Ser Cys Arg Arg Arg Arg Ser Gly Ser Cys Arg Ser
        355                 360                 365

Trp Ser Cys Cys Arg Arg Arg Thr Ala Gly Arg Ala Ala Ala Ala Gly
    370                 375                 380

Gly Gly Gly Thr Ala Pro Gln Pro Ala Pro Arg Ala Ala Ala Gly Ala
385                 390                 395                 400

Arg Gly Pro Thr Ala Arg Gly Gly Ala Gly Pro Gly Leu His Ala Gly
                405                 410                 415
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<210> 66
<211> 166
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (141)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (162)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 66
Met Ser Ser Ser Tyr Glu Ser Tyr Asp Glu Glu Glu Glu Asp Gly Lys
1 5 10 15

Gly Lys Lys Thr Arg His Gln Trp Pro Ser Glu Glu Ala Ser Met Asp
20 25 30

Leu Val Lys Asp Ala Lys Ile Cys Ala Phe Leu Leu Arg Lys Lys Arg
35 40 45

Phe Gly Gln Trp Thr Lys Leu Leu Cys Val Ile Lys Asp Thr Lys Leu
50 55 60

Leu Cys Tyr Lys Ser Ser Lys Asp Gln Gln Pro Gln Met Glu Leu Pro
65 70 75 80

Leu Gln Gly Cys Asn Ile Thr Tyr Ile Pro Lys Asp Ser Lys Lys Lys
85 90 95

Lys His Glu Leu Lys Ile Thr Gln Gln Gly Thr Asp Pro Leu Val Leu
100 105 110

Ala Val Gln Ser Lys Glu Gln Ala Glu Gln Trp Leu Lys Val Ile Lys
115 120 125

Glu Ala Tyr Ser Gly Cys Ser Gly Pro Val Asp Ser Xaa Cys Pro Pro
130 135 140

Pro Pro Ser Ser Pro Val His Lys Ala Glu Leu Glu Lys Asn Cys Leu
145 150 155 160

Arg Xaa Xaa Gln Leu Lys
165

<210> 67
<211> 446
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (392)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (405)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 67
Ser Thr Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Glu Ser Leu Arg
1 5 10 15

Gly Asp Ile Phe Gln Lys Phe Met Glu Ser Asp Lys Phe Thr Arg Phe
20 25 30

Cys Gln Trp Lys Asn Val Glu Leu Asn Ile His Leu Thr Met Asn Glu
35 40 45

Phe Ser Val His Arg Ile Ile Gly Arg Gly Gly Phe Gly Glu Val Tyr

50 55 60

Gly Cys Arg Lys Ala Asp Thr Gly Lys Met Tyr Ala Met Lys Cys Leu
65 70 75 80

Asp Lys Lys Arg Ile Lys Met Lys Gln Gly Glu Thr Leu Ala Leu Asn
85 90 95

Glu Arg Ile Met Leu Ser Leu Val Ser Thr Gly Asp Cys Pro Phe Ile
100 105 110

Val Cys Met Thr Tyr Ala Phe His Thr Pro Asp Lys Leu Cys Phe Ile
115 120 125

Leu Asp Leu Met Asn Gly Gly Asp Leu His Tyr His Leu Ser Gln His
130 135 140

Gly Val Phe Ser Glu Lys Glu Met Arg Phe Tyr Ala Thr Glu Ile Ile
145 150 155 160

Leu Gly Leu Glu His Met His Asn Arg Phe Val Val Tyr Arg Asp Leu
165 170 175

Lys Pro Ala Asn Ile Leu Leu Asp Glu His Gly His Ala Arg Ile Ser
180 185 190

Asp Leu Gly Leu Ala Cys Asp Phe Ser Lys Lys Lys Pro His Ala Ser
195 200 205

Val Gly Thr His Gly Tyr Met Ala Pro Glu Val Leu Gln Lys Gly Thr
210 215 220

Ala Tyr Asp Ser Ser Ala Asp Trp Phe Ser Leu Gly Cys Met Leu Phe
225 230 235 240

Lys Leu Leu Arg Gly His Ser Pro Phe Arg Gln His Lys Thr Lys Asp
245 250 255

Lys His Glu Ile Asp Arg Met Thr Leu Thr Val Asn Val Glu Leu Pro
260 265 270

Asp Thr Phe Ser Pro Glu Leu Lys Ser Leu Leu Glu Gly Leu Leu Gln
275 280 285

Arg Asp Val Ser Lys Arg Leu Gly Cys His Gly Gly Gly Ser Gln Glu
290 295 300

Val Lys Glu His Ser Phe Phe Lys Gly Val Asp Trp Gln His Val Tyr
305 310 315 320

Leu Gln Lys Tyr Pro Pro Pro Leu Ile Pro Pro Arg Gly Glu Val Asn
325 330 335

Ala Ala Asp Ala Phe Asp Ile Gly Ser Phe Asp Glu Glu Asp Thr Lys
340 345 350

Gly Ile Lys Leu Leu Asp Cys Asp Gln Glu Leu Tyr Lys Asn Phe Pro
355 360 365

Leu Val Ile Ser Glu Arg Trp Gln Gln Glu Val Thr Xaa Thr Val Tyr
370 375 380

Glu Ala Val Asn Ala Asp Thr Xaa Lys Ile Glu Ala Arg Lys Arg Ala
385 390 395 400

Lys Asn Lys Gln Xaa Gly His Glu Glu Asp Tyr Ala Leu Gly Lys Asp

405 410 415

Cys Ile Met His Gly Tyr Met Leu Lys Leu Gly Asn Pro Phe Leu Thr
420 425 430

Gln Trp Gln Arg Arg Asp Phe Tyr Leu Phe Pro Asn Ser Leu
435 440 445

<210> 68
<211> 244
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (195)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 68
Ser Xaa Asp Lys Val Pro Pro Asp Ser Ala Leu Glu Ser Pro Phe Glu
1 5 10 15

Glu Met Ala Leu Val Arg Gly Gly Trp Leu Trp Arg Gln Ser Ser Ile
20 25 30

Leu Arg Arg Trp Lys Arg Asn Trp Phe Ala Leu Trp Leu Asp Gly Thr
35 40 45

Leu Gly Tyr Tyr His Asp Glu Thr Ala Gln Asp Glu Glu Asp Arg Val
50 55 60

Leu Ile His Phe Asn Val Arg Asp Ile Lys Ile Gly Pro Glu Cys His
65 70 75 80

Asp Val Gln Pro Pro Glu Gly Arg Ser Arg Asp Gly Leu Leu Thr Val
85 90 95

Asn Leu Arg Glu Gly Gly Arg Leu His Leu Cys Ala Glu Thr Lys Asp
100 105 110

Asp Ala Leu Ala Trp Lys Thr Ala Leu Leu Glu Ala Asn Ser Thr Pro
115 120 125

Val Arg Val Tyr Ser Pro Tyr Gln Asp Tyr Tyr Glu Val Val Pro Pro
130 135 140

Asn Ala His Glu Ala Thr Tyr Val Arg Ser Tyr Tyr Gly Pro Pro Tyr
145 150 155 160

Ala Gly Pro Gly Val Thr His Val Ile Val Arg Glu Asp Pro Cys Tyr
165 170 175

Ser Ala Gly Ala Pro Leu Ala Met Gly Met Leu Ala Gly Xaa Pro Leu
180 185 190

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Gly Gly Xaa Gly Leu Ala His Val Val Ala Leu Leu Val Leu Ser Pro
        195                 200                 205

Gly Thr Arg Ser Thr Asp Pro Cys Ala Trp Ile Ala Arg Leu Leu Phe
    210                 215                 220

Leu Leu Asp Pro Ile Leu Tyr His Pro Ser Pro Val Pro Leu Trp Pro
225                 230                 235                 240

Tyr Pro Leu His
```

<210> 69
<211> 378
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (106)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (179)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (308)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (366)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (375)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 69

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Glu Leu Asp Pro Lys Cys Arg Gly Leu Pro Phe Ser Ser Phe Leu Ile
  1               5                  10                  15

Leu Pro Phe Gln Arg Ile Thr Arg Leu Lys Leu Leu Val Gln Asn Ile
             20                  25                  30

Leu Lys Arg Val Glu Glu Arg Ser Glu Arg Glu Cys Thr Ala Leu Asp
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        35                  40                  45

Ala His Lys Glu Leu Glu Met Val Val Lys Ala Cys Asn Glu Gly Val
    50                  55                  60

Arg Lys Met Ser Arg Thr Glu Gln Met Ile Ser Ile Gln Lys Lys Met
65                  70                  75                  80

Xaa Phe Lys Ile Xaa Ser Val Pro Ile Ile Ser His Ser Arg Trp Leu
                85                  90                  95

Leu Lys Gln Gly Glu Leu Gln Gln Xaa Xaa Gly Pro Lys Thr Ser Arg
            100                 105                 110

Thr Leu Arg Thr Lys Lys Leu Phe His Glu Ile Tyr Leu Phe Leu Phe
        115                 120                 125

Asn Asp Leu Leu Val Ile Cys Arg Gln Ile Pro Gly Asp Lys Tyr Gln
    130                 135                 140

Val Phe Asp Ser Ala Pro Arg Gly Leu Leu Arg Val Glu Glu Leu Glu
145                 150                 155                 160

Asp Gln Gly Gln Thr Leu Ala Asn Val Phe Ile Leu Arg Leu Leu Glu
                165                 170                 175

Asn Ala Xaa Asp Arg Glu Ala Thr Tyr Met Leu Lys Ala Ser Ser Gln
            180                 185                 190

Ser Glu Met Lys Arg Trp Met Thr Ser Leu Ala Pro Asn Arg Arg Thr
        195                 200                 205

Lys Phe Val Ser Phe Thr Ser Arg Leu Leu Asp Cys Pro Gln Val Gln
    210                 215                 220

Cys Val His Pro Tyr Val Ala Gln Gln Pro Asp Glu Leu Thr Leu Glu
225                 230                 235                 240

Leu Ala Asp Ile Leu Asn Ile Leu Asp Lys Thr Asp Asp Gly Trp Ile
                245                 250                 255

Phe Gly Glu Arg Leu His Asp Gln Glu Arg Gly Trp Phe Pro Ser Ser
            260                 265                 270

Met Thr Glu Glu Ile Leu Asn Pro Lys Ile Arg Ser Gln Asn Leu Lys
        275                 280                 285

Glu Cys Phe Arg Val His Lys Met Asp Asp Pro Gln Arg Ser Arg Thr
    290                 295                 300

Arg Thr Ala Xaa Ser Trp Ala Ala Gly Ile Gly Asn Asp Pro His Pro
305                 310                 315                 320

Gly Gly Gln Arg Glu Gln Gly Leu His Glu Thr Pro Thr Glu Gly Gly
                325                 330                 335

Gly Gly Ala Leu Gly Ser Thr Gly Gln His Leu Pro Arg Trp Gln Asp
            340                 345                 350

Leu Ala Trp Gly Ala Arg Pro Ser Ser Leu Pro Thr His Xaa Cys Ser
        355                 360                 365

Cys Val Leu Ala Pro Cys Xaa Gln Thr Gly
    370                 375
```

<210> 70
<211> 205
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 70
Ala Arg Ala Ala Trp Pro Gly Val Asp Ala Val Ala Glu Pro Arg Gly
1 5 10 15

Ala Gly Arg Xaa Trp Arg Thr Ala Gly Pro Arg Arg Thr Arg Met Glu
20 25 30

Glu Glu Gly Val Lys Glu Xaa Gly Glu Lys Pro Arg Gly Ala Gln Met
35 40 45

Val Asp Lys Ala Gly Trp Ile Lys Lys Ser Ser Gly Gly Leu Leu Gly
50 55 60

Phe Trp Lys Asp Arg Tyr Leu Leu Leu Cys Gln Ala Gln Leu Leu Val
65 70 75 80

Tyr Glu Asn Glu Asp Asp Gln Lys Cys Val Glu Thr Val Glu Leu Gly
85 90 95

Ser Tyr Glu Lys Cys Gln Asp Leu Arg Ala Leu Leu Lys Arg Lys His
100 105 110

Arg Phe Ile Leu Leu Arg Ser Pro Gly Asn Lys Val Ser Asp Ile Lys
115 120 125

Phe Gln Ala Pro Thr Gly Glu Glu Lys Glu Ser Trp Ile Lys Ala Leu
130 135 140

Asn Glu Gly Ile Asn Arg Gly Lys Asn Lys Ala Phe Asp Glu Val Lys
145 150 155 160

Val Asp Lys Ser Cys Ala Leu Glu His Val Thr Arg Asp Arg Val Arg
165 170 175

Gly Gly Gln Arg Arg Arg Pro Pro Thr Arg Val His Leu Lys Glu Val
180 185 190

Ala Ser Ala Ala Ser Asp Gly Leu Leu Arg Leu Gly Ser
195 200 205

<210> 71
<211> 118
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 71
Trp Glu Pro Phe Pro Ser Glu Gln Gln Pro Cys Pro Ala Ser Val Leu
1 5 10 15

Ser Ser Gln Gln Gly Lys Ser Ile Ser Leu Ile Met Glu Glu Asn Asn
20 25 30

Asp Ser Thr Glu Asn Pro Gln Gln Gly Gln Gly Arg Gln Asn Ala Ile
35 40 45

Lys Cys Gly Trp Leu Arg Lys Gln Gly Gly Phe Val Lys Thr Trp His
50 55 60

Thr Arg Trp Phe Val Leu Lys Gly Asp Gln Leu Tyr Tyr Phe Lys Asp
65 70 75 80

Glu Asp Glu Thr Lys Pro Leu Glu Tyr Leu Thr Thr Ser Gly Asp Ser
85 90 95

Val Trp Leu Val Xaa Ser Trp Gly Arg Tyr His Arg Tyr Leu Val Gly
100 105 110

Arg Ser Arg Gly Ala Phe
115

<210> 72
<211> 361
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (295)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 72
Leu Ser Cys Ser Gly Ile His Arg Asn Ile Pro Gln Val Ser Lys Val
1 5 10 15

Lys Ser Val Arg Leu Asp Ala Trp Xaa Glu Ala Gln Val Glu Phe Met
20 25 30

Ala Ser His Gly Asn Asp Ala Ala Arg Ala Arg Phe Xaa Ser Lys Val
35 40 45

Pro Ser Phe Tyr Tyr Arg Pro Thr Pro Ser Asp Cys Gln Leu Leu Arg
50 55 60

Glu Gln Trp Ile Arg Ala Lys Tyr Glu Arg Gln Glu Phe Ile Tyr Pro
65 70 75 80

Glu Lys Gln Glu Pro Tyr Ser Ala Gly Tyr Arg Glu Gly Phe Leu Trp
85 90 95

Lys Arg Gly Arg Asp Asn Gly Gln Phe Leu Ser Arg Lys Phe Val Leu

```
            100                 105                 110

Thr Glu Arg Glu Gly Ala Leu Lys Tyr Phe Asn Arg Asn Asp Ala Lys
        115                 120                 125

Glu Pro Lys Ala Val Met Lys Ile Glu His Leu Asn Ala Thr Phe Gln
    130                 135                 140

Pro Ala Lys Ile Gly His Pro His Gly Leu Gln Val Thr Tyr Leu Lys
145                 150                 155                 160

Asp Asn Ser Thr Arg Asn Ile Phe Ile Tyr His Glu Asp Gly Lys Glu
                165                 170                 175

Ile Val Asp Trp Phe Asn Ala Leu Arg Ala Ala Arg Phe His Tyr Leu
            180                 185                 190

Gln Val Ala Phe Pro Gly Ala Ser Asp Ala Asp Leu Val Pro Lys Leu
        195                 200                 205

Ser Arg Asn Tyr Leu Lys Glu Gly Tyr Met Glu Lys Thr Gly Pro Lys
    210                 215                 220

Gln Thr Glu Gly Phe Arg Lys Arg Trp Phe Thr Met Asp Asp Arg Arg
225                 230                 235                 240

Leu Met Tyr Phe Lys Asp Pro Leu Asp Ala Phe Ala Arg Gly Glu Val
                245                 250                 255

Phe Ile Gly Ser Lys Glu Ser Gly Tyr Thr Val Leu His Gly Phe Pro
            260                 265                 270

Pro Ser Thr Gln Gly His His Trp Pro His Gly Ile Thr Ile Val Thr
        275                 280                 285

Pro Asp Arg Lys Phe Leu Xaa Ala Cys Glu Thr Glu Ser Asp Gln Arg
    290                 295                 300

Glu Trp Val Ala Ala Phe Gln Lys Ala Val Asp Arg Pro Met Leu Pro
305                 310                 315                 320

Gln Glu Tyr Ala Trp Arg Arg Thr Ser Ser Ile Asn Leu Ser Glu Cys
                325                 330                 335

Gly Trp Arg Thr Thr Asp Ile Gly Leu Thr Val Ala Gly Arg Arg Gly
            340                 345                 350

Pro Val Asp Gly Gly Ala Leu Ala Ser
        355                 360


<210> 73
<211> 323
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (286)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (289)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (299)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (303)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 73
Ser Thr His Ala Ser Ala Gly Leu Gly Gly Arg Arg Pro Arg Leu Arg
1   5   10   15

Tyr Arg Cys Leu Ala Val Gln Pro Gly Arg Leu Pro Ala Arg Pro Pro
            20   25   30

Pro Asp Gln Gly Pro Arg Pro Val Pro Pro Leu Ser Arg Pro Ala Lys
        35   40   45

Cys Arg Pro Pro Pro Ser Leu Arg Arg Ser Val Gly Ser Trp Lys Met
    50   55   60

Leu Lys Ser Phe Trp Gln Lys Val Cys Gly Met Arg Thr Ser Ala Leu
65   70   75   80

Leu Gln Gly Ile Thr Asp His Ile Leu Arg Gly Phe Gln Gln Ile Lys
                85   90   95

Ala Arg Tyr Tyr Trp Asp Phe Gln Pro Gln Gly Gly Asp Ile Gly Gln
            100   105   110

Asp Ser Ser Asp Asp Asn His Ser Gly Thr Leu Gly Leu Ser Leu Thr
        115   120   125

Ser Asp Ala Pro Phe Leu Ser Asp Tyr Gln Asp Glu Gly Met Glu Asp
    130   135   140

Ile Val Lys Gly Ala Gln Glu Leu Asp Asn Val Ile Lys Gln Gly Tyr
145   150   155   160

Leu Glu Lys Lys Ser Lys Asp His Ser Phe Phe Gly Ser Glu Trp Gln
                165   170   175

Lys Arg Trp Cys Val Val Ser Arg Gly Leu Phe Tyr Tyr Tyr Ala Asn
            180   185   190

Glu Lys Ser Lys Gln Pro Lys Gly Thr Phe Leu Ile Lys Gly Tyr Ser
        195   200   205

Val Arg Met Ala Pro His Leu Arg Arg Asp Ser Lys Lys Glu Ser Cys
    210   215   220

Phe Glu Leu Thr Ser Gln Asp Arg Arg Ser Tyr Glu Phe Thr Ala Thr
225   230   235   240

Ser Pro Ala Glu Ala Arg Asp Trp Val Asp Gln Ile Ser Phe Leu Leu
                245   250   255

Lys Asp Leu Ser Ser Leu Thr Ile Pro Tyr Glu Glu Asp Glu Glu Glu
            260   265   270

Glu Glu Lys Glu Glu Thr Tyr Asp Asp Ile Asp Gly Phe Xaa Ser Pro
        275   280   285

Xaa Cys Gly Ser Gln Cys Arg Pro Thr Ile Xaa Pro Gly Ser Xaa Gly

290 295 300

Ile Lys Glu Pro Thr Glu Glu Lys Glu Glu Glu Asp Ile Tyr Glu Ser
305 310 315 320

Leu Ala Arg

<210> 74
<211> 327
<212> PRT
<213> Homo sapiens

<400> 74
Asn Cys Gln Gly Thr Gly Asp Phe Asn Leu Lys Val Glu Ala Ala Lys
1 5 10 15

Ile Ala Arg Ser Arg Ser Val Met Thr Gly Glu Gln Met Ala Ala Phe
20 25 30

His Pro Ser Ser Thr Pro Asn Pro Leu Glu Arg Pro Ile Lys Met Gly
35 40 45

Trp Leu Lys Lys Gln Arg Ser Ile Val Lys Asn Trp Gln Gln Arg Tyr
50 55 60

Phe Val Leu Arg Ala Gln Gln Leu Tyr Tyr Tyr Lys Asp Glu Glu Asp
65 70 75 80

Thr Lys Pro Gln Gly Cys Met Tyr Leu Pro Gly Cys Thr Ile Lys Glu
85 90 95

Ile Ala Thr Asn Pro Glu Glu Ala Gly Lys Phe Val Phe Glu Ile Ile
100 105 110

Pro Ala Ser Trp Asp Gln Asn Arg Met Gly Gln Asp Ser Tyr Val Leu
115 120 125

Met Ala Ser Ser Gln Ala Glu Met Glu Glu Trp Val Lys Phe Leu Arg
130 135 140

Arg Val Ala Gly Thr Pro Cys Gly Ala Val Phe Gly Gln Arg Leu Asp
145 150 155 160

Glu Thr Val Ala Tyr Glu Gln Lys Phe Gly Pro His Leu Val Pro Ile
165 170 175

Leu Val Glu Lys Cys Ala Glu Phe Ile Leu Glu His Gly Arg Asn Glu
180 185 190

Glu Gly Ile Phe Arg Leu Pro Gly Gln Asp Asn Leu Val Lys Gln Leu
195 200 205

Arg Asp Ala Phe Asp Ala Gly Glu Arg Pro Ser Phe Asp Arg Asp Thr
210 215 220

Asp Val His Thr Val Ala Ser Leu Leu Lys Leu Tyr Leu Arg Asp Leu
225 230 235 240

Pro Glu Pro Val Val Pro Trp Ser Gln Tyr Glu Gly Phe Leu Leu Cys
245 250 255

Gly Gln Leu Thr Asn Ala Asp Glu Ala Lys Ala Gln Gln Glu Leu Met
260 265 270

Lys Gln Leu Ser Ile Leu Pro Arg Asp Asn Tyr Ser Leu Leu Ser Tyr
275 280 285

Ile Cys Arg Phe Leu His Glu Ile Gln Leu Asn Cys Ala Val Asn Lys
290 295 300

Met Ser Val Asp Asn Leu Ala Thr Val Ile Gly Val Asn Leu Ile Arg
305 310 315 320

Ser Lys Val Glu Ala Leu Pro
325

<210> 75
<211> 283
<212> PRT
<213> Homo sapiens

<400> 75
Arg Ala Arg Met Gly Arg Ala Glu Leu Leu Glu Gly Lys Met Ser Thr
1 5 10 15

Gln Asp Pro Ser Asp Leu Trp Ser Arg Ser Asp Gly Glu Ala Glu Leu
20 25 30

Leu Gln Asp Leu Gly Trp Tyr His Gly Asn Leu Thr Arg His Ala Ala
35 40 45

Glu Ala Leu Leu Leu Ser Asn Gly Cys Asp Gly Ser Tyr Leu Leu Arg
50 55 60

Asp Ser Asn Glu Thr Thr Gly Leu Tyr Ser Leu Ser Val Arg Ala Lys
65 70 75 80

Asp Ser Val Lys His Phe His Val Glu Tyr Thr Gly Tyr Ser Phe Lys
85 90 95

Phe Gly Phe Asn Glu Phe Ser Ser Leu Lys Asp Phe Val Lys His Phe
100 105 110

Ala Asn Gln Pro Leu Ile Gly Ser Glu Thr Gly Thr Leu Met Val Leu
115 120 125

Lys His Pro Tyr Pro Arg Lys Val Glu Glu Pro Ser Ile Tyr Glu Ser
130 135 140

Val Arg Val His Thr Ala Met Gln Thr Gly Arg Thr Glu Asp Asp Leu
145 150 155 160

Val Pro Thr Ala Pro Ser Leu Gly Thr Lys Glu Gly Tyr Leu Thr Lys
165 170 175

Gln Gly Gly Leu Val Lys Thr Trp Lys Thr Arg Trp Phe Thr Leu His
180 185 190

Arg Asn Glu Leu Lys Tyr Phe Lys Asp Gln Met Ser Pro Glu Pro Ile
195 200 205

Arg Ile Leu Asp Leu Thr Glu Cys Ser Ala Val Gln Phe Asp Tyr Ser
210 215 220

Gln Glu Arg Val Asn Cys Phe Cys Leu Val Phe Pro Phe Arg Thr Phe
225 230 235 240

Tyr Leu Cys Ala Lys Thr Gly Val Glu Ala Asp Glu Trp Ile Lys Ile
245 250 255

Leu Arg Trp Lys Leu Ser Gln Ile Arg Lys Gln Leu Asn Gln Gly Glu
260 265 270

Gly Thr Ile Arg Ser Arg Ser Phe Ile Phe Lys
275 280

<210> 76
<211> 146
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76
Ile Ser Gln Leu Trp Xaa Ser Ala Leu Arg Asn Ala Ser Ala Pro Asn
1 5 10 15

Pro Asn Lys Leu Ala Ala Cys His Pro Gly Ala Phe Arg Ser Ala Arg
20 25 30

Trp Thr Cys Cys Leu Gln Ala Glu Arg Ser Ala Ala Gly Cys Ser Arg
35 40 45

Thr His Ser Ala Val Thr Leu Gly Asp Trp Ser Asp Pro Leu Asp Pro
50 55 60

Asp Ala Glu Ala Gln Thr Val Tyr Arg Gln Leu Leu Leu Gly Arg Asp
65 70 75 80

Gln Leu Arg Leu Lys Leu Leu Glu Asp Ser Asn Met Asp Thr Thr Leu
85 90 95

Glu Ala Asp Thr Gly Ala Cys Pro Glu Val Leu Ala Arg Gln Arg Ala
100 105 110

Ala Thr Ala Arg Leu Leu Glu Val Leu Ala Asp Leu Asp Arg Ala His
115 120 125

Glu Glu Phe Gln Gln Gln Glu Arg Gly Lys Ala Ala Leu Gly Pro Leu
130 135 140

Gly Pro
145

<210> 77
<211> 250
<212> PRT
<213> Homo sapiens

<400> 77
Lys Met Val Asp Arg Leu Ala Asn Ser Glu Ala Asn Thr Arg Arg Ile
1 5 10 15

Ser Ile Val Glu Asn Cys Phe Gly Ala Ala Gly Gln Pro Leu Thr Ile
20 25 30

Pro Gly Arg Val Leu Ile Gly Glu Gly Val Leu Thr Lys Leu Cys Arg
35 40 45

Lys Lys Pro Lys Ala Arg Gln Phe Phe Leu Phe Asn Asp Ile Leu Val

```
     50                  55                  60

Tyr Gly Asn Ile Val Ile Gln Lys Lys Lys Tyr Asn Lys Gln His Ile
 65                  70                  75                  80

Ile Pro Leu Glu Asn Val Thr Ile Asp Ser Ile Lys Asp Glu Gly Asp
                85                  90                  95

Leu Arg Asn Gly Trp Leu Ile Lys Thr Pro Thr Lys Ser Phe Ala Val
            100                 105                 110

Tyr Ala Ala Thr Ala Thr Glu Lys Ser Glu Trp Met Asn His Ile Asn
        115                 120                 125

Lys Cys Val Thr Asp Leu Leu Ser Lys Ser Gly Lys Thr Pro Ser Asn
    130                 135                 140

Glu His Ala Ala Val Trp Val Pro Asp Ser Glu Ala Thr Val Cys Met
145                 150                 155                 160

Arg Cys Gln Lys Ala Lys Phe Thr Pro Val Asn Arg Arg His His Cys
                165                 170                 175

Arg Lys Cys Gly Phe Val Val Cys Gly Pro Cys Ser Glu Lys Arg Phe
            180                 185                 190

Leu Leu Pro Ser Gln Ser Ser Lys Pro Val Arg Ile Cys Asp Phe Cys
        195                 200                 205

Tyr Asp Leu Leu Ser Ala Gly Asp Met Ala Thr Cys Gln Pro Ala Arg
    210                 215                 220

Ser Asp Ser Tyr Ser Gln Ser Leu Lys Ser Pro Leu Asn Asp Met Ser
225                 230                 235                 240

Asp Asp Asp Asp Asp Asp Asp Ser Ser Asp
                245                 250


<210> 78
<211> 224
<212> PRT
<213> Homo sapiens

<400> 78
Leu Asn Ile Leu Leu Arg Ile Asp Phe Asp Glu Gly Cys His Asn Glu
  1               5                  10                  15

Arg Lys Val Thr Cys Lys His Pro Val Thr Gly Gln Pro Ser Gln Asp
            20                  25                  30

Asn Cys Ile Phe Val Val Asn Glu Gln Thr Val Ala Thr Met Thr Ser
        35                  40                  45

Glu Glu Lys Lys Glu Arg Pro Ile Ser Met Ile Asn Glu Ala Ser Asn
    50                  55                  60

Tyr Asn Val Thr Ser Asp Tyr Ala Val His Pro Met Ser Pro Val Gly
 65                  70                  75                  80

Arg Thr Ser Arg Ala Ser Lys Lys Val His Asn Phe Gly Lys Arg Ser
                85                  90                  95

Asn Ser Ile Lys Arg Asn Pro Asn Ala Pro Val Val Arg Arg Gly Trp
            100                 105                 110
```

Leu Tyr Lys Gln Asp Ser Thr Gly Met Lys Leu Trp Lys Lys Arg Trp
115 120 125

Phe Val Leu Ser Asp Leu Cys Leu Phe Tyr Tyr Arg Asp Glu Lys Glu
130 135 140

Glu Gly Ile Leu Gly Ser Ile Leu Leu Pro Ser Phe Gln Ile Ala Leu
145 150 155 160

Leu Thr Ser Glu Asp His Ile Asn Arg Lys Tyr Ala Phe Lys Ala Ala
165 170 175

His Pro Asn Met Arg Thr Tyr Tyr Phe Cys Thr Asp Thr Gly Lys Glu
180 185 190

Met Glu Leu Trp Met Lys Ala Met Leu Asp Ala Ala Leu Val Gln Thr
195 200 205

Glu Pro Val Lys Arg Val Asp Lys Ile Thr Ser Glu Asn Ala Pro Thr
210 215 220

<210> 79
<211> 354
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (151)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (165)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (166)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (204)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (214)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (245)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (251)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (342)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (354)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 79
Ser Ala Thr Ser Ser Xaa Thr Thr Cys Ala Cys Thr Pro Pro Glu Pro
1 5 10 15

Xaa Pro Thr Thr Thr Glu Asp Glu Gly Leu Pro Ala Ala Xaa Pro Ile
20 25 30

Pro Xaa Arg Arg Ser Xaa Leu Xaa Xaa Thr Cys Phe Thr Thr Pro Ser
35 40 45

Thr Ala Ala Pro Asp Pro Val Leu Pro Pro Leu Pro Ala Lys Arg His
50 55 60

Leu Ala Glu Leu Ser Val Pro Pro Val Pro Pro Arg Thr Gly Pro Pro
65 70 75 80

Arg Leu Leu Val Ser Leu Pro Thr Lys Glu Glu Glu Ser Leu Leu Pro

85 90 95

Ser Leu Ser Ser Pro Pro Gln Pro Gln Ser Glu Glu Pro Leu Ser Thr
100 105 110

Leu Pro Gln Gly Pro Pro Gln Pro Pro Ser Pro Pro Pro Cys Pro Pro
115 120 125

Glu Ile Pro Pro Lys Pro Val Arg Leu Phe Pro Glu Phe Asp Asp Ser
130 135 140

Xaa Tyr Asp Glu Val Pro Xaa Glu Gly Pro Gly Ala Pro Ala Arg Val
145 150 155 160

Met Thr Lys Lys Xaa Xaa Pro Pro Pro Ser Arg Val Pro Arg Ala Val
165 170 175

Arg Val Ala Ser Leu Leu Ser Glu Gly Glu Glu Leu Ser Gly Asp Asp
180 185 190

Gln Gly Asp Glu Glu Glu Asp Asp His Ala Tyr Xaa Gly Val Pro Asn
195 200 205

Gly Gly Trp His Thr Xaa Ser Leu Ser Leu Ser Leu Pro Ser Thr Ile
210 215 220

Ala Ala Pro His Pro Met Asp Gly Pro Pro Gly Gly Ser Thr Pro Val
225 230 235 240

Thr Pro Val Ile Xaa Ala Gly Trp Leu Asp Xaa Asn Pro Pro Gln Gly
245 250 255

Ser Tyr Ile Tyr Gln Lys Arg Trp Val Arg Leu Asp Thr Asp His Leu
260 265 270

Arg Tyr Phe Asp Ser Asn Lys Asp Ala Tyr Ser Lys Arg Phe Ile Ser
275 280 285

Val Ala Cys Ile Ser His Val Ala Ala Ile Gly Asp Gln Lys Phe Glu
290 295 300

Val Ile Thr Asn Asn Arg Thr Phe Ala Phe Arg Ala Glu Ser Asp Val
305 310 315 320

Glu Arg Lys Glu Trp Met Gln Ala Leu Gln Gln Ala Met Ala Glu Gln
325 330 335

Arg Ala Arg Ala Arg Xaa Ser Ser Ala Tyr Leu Leu Gly Val Pro Gly
340 345 350

Ser Xaa

<210> 80
<211> 251
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (120)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (122)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (234)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (239)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (249)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 80
```
Thr Ile Cys Phe Trp Lys Gln Asp Ser Arg Gly Arg Val Pro Ala Thr
  1               5                  10                  15

Ala Asp Gln Ala Pro Arg Arg Thr Gln Ala Ser Thr Glu Gln Ala Glu
             20                  25                  30

Thr Asp Asp Asn Met Asp Thr Lys Ser Ile Leu Glu Glu Leu Leu Leu
         35                  40                  45

Lys Arg Ser Gln Gln Lys Lys Lys Met Ser Pro Xaa Asn Tyr Lys Glu
     50                  55                  60

Arg Leu Phe Val Leu Thr Lys Thr Asn Leu Ser Tyr Tyr Glu Tyr Asp
 65                  70                  75                  80

Lys Met Lys Arg Gly Ser Arg Lys Gly Ser Ile Glu Ile Lys Lys Ile
                 85                  90                  95

Arg Cys Val Glu Lys Val Asn Leu Glu Glu Gln Thr Pro Val Glu Arg
            100                 105                 110

Xaa Tyr Pro Phe Xaa Ile Val Xaa Lys Xaa Gly Leu Leu Tyr Val Tyr
        115                 120                 125

Ala Ser Asn Glu Glu Ser Arg Ser Gln Trp Leu Lys Ala Leu Gln Lys
    130                 135                 140

Glu Ile Arg Gly Asn Pro His Leu Leu Val Lys Tyr His Ser Gly Phe
145                 150                 155                 160

Phe Val Asp Gly Lys Phe Leu Cys Cys Gln Gln Ser Cys Lys Ala Ala
                165                 170                 175
```

```
Pro Gly Cys Thr Leu Trp Glu Ala Tyr Ala Asn Leu His Thr Ala Val
            180                 185                 190

Asn Glu Glu Lys His Arg Val Pro Thr Phe Pro Asp Arg Val Leu Lys
        195                 200                 205

Ile Pro Arg Ala Val Pro Val Leu Lys Met Asp Ala Pro Ser Ser Ser
    210                 215                 220

Thr Thr Leu Pro Asn Met Thr Thr Asn Xaa Arg Lys Thr Met Xaa Ser
225                 230                 235                 240

Ser Pro Ile Phe Lys Val Gln Ser Xaa Ala Ile
                245                 250


<210> 81
<211> 268
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 81
Pro Arg Val Arg Leu Ala Glu Leu Leu Lys Tyr Thr Ala Gln Asp His
  1               5                  10                  15

Ser Asp Tyr Arg Tyr Val Ala Ala Ala Leu Ala Val Met Arg Asn Val
             20                  25                  30

Thr Gln Gln Ile Asn Glu Arg Lys Arg Arg Leu Glu Asn Ile Asp Lys
         35                  40                  45

Ile Ala Gln Trp Gln Ala Ser Val Leu Asp Trp Glu Gly Glu Asp Ile
     50                  55                  60

Leu Asp Arg Ser Ser Glu Leu Ile Tyr Thr Gly Glu Met Ala Trp Ile
 65                  70                  75                  80

Tyr Gln Pro Tyr Xaa Arg Asn Gln Gln Arg Val Phe Phe Leu Phe Asp
                85                  90                  95

His Gln Met Val Leu Cys Lys Lys Asp Leu Ile Arg Arg Asp Ile Leu
            100                 105                 110

Tyr Tyr Lys Gly Arg Ile Asp Met Asp Lys Tyr Glu Val Val Asp Ile
        115                 120                 125

Glu Asp Gly Arg Asp Asp Asp Phe Asn Val Ser Met Lys Asn Ala Phe
    130                 135                 140

Lys Leu His Asn Lys Glu Thr Glu Glu Ile His Leu Phe Phe Ala Lys
145                 150                 155                 160

Lys Leu Glu Glu Lys Ile Arg Trp Leu Arg Ala Phe Arg Glu Glu Arg
                165                 170                 175

Lys Met Val Gln Glu Asp Glu Lys Ile Gly Phe Glu Ile Ser Glu Asn
            180                 185                 190

Gln Lys Arg Gln Ala Ala Met Thr Val Arg Lys Val Pro Lys Gln Lys
        195                 200                 205
```

Gly Val Asn Ser Ala Arg Ser Val Pro Pro Ser Tyr Pro Pro Pro Gln
    210   215   220

Asp Pro Leu Asn His Gly Gln Tyr Leu Val Pro Asp Gly Ile Ala Gln
225   230   235   240

Ser Gln Val Phe Glu Phe Thr Glu Pro Lys Arg Ser Gln Ser Pro Phe
                245   250   255

Trp Gln Asn Phe Ser Arg Leu Thr Pro Phe Lys Lys
            260   265

<210> 82
<211> 380
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (132)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (365)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 82
Thr Leu Ser Val Leu Trp Phe Gln Cys Pro Ala Glu Glu His Ala Ala
  1   5   10   15

Glu Gln Glu Glu Ser His Pro Gln Ser Gly Gly Asp Pro Gly Asp Pro
            20   25   30

Gln Gly Trp Leu Thr Ile Asn Asn Ile Ser Leu Met Lys Gly Gly Ser
        35   40   45

Lys Glu Tyr Trp Phe Val Leu Thr Ala Glu Ser Leu Ser Trp Tyr Lys
    50   55   60

Asp Glu Glu Glu Lys Glu Lys Lys Tyr Met Leu Pro Leu Asp Asn Leu
65   70   75   80

Lys Ile Arg Asp Val Glu Lys Gly Phe Met Ser Asn Lys His Val Phe
                85   90   95

Ala Ile Phe Asn Thr Glu Gln Arg Asn Val Tyr Lys Asp Leu Arg Gln
            100   105   110

Ile Glu Leu Ala Cys Xaa Ser Gln Glu Asp Val Asp Ser Trp Lys Ala
        115   120   125

Ser Phe Leu Xaa Ala Gly Val Tyr Pro Glu Lys Asp Gln Ala Glu Asn
    130   135   140

Glu Asp Gly Ala Gln Glu Asn Thr Phe Ser Met Asp Pro Gln Leu Glu
145   150   155   160

Arg Gln Val Glu Thr Ile Arg Asn Leu Val Asp Ser Tyr Val Ala Ile

```
                 165                 170                 175
Ile Asn Lys Ser Ile Arg Asp Leu Met Pro Lys Thr Ile Met His Leu
            180                 185                 190
Met Ile Asn Asn Thr Lys Ala Phe Ile His His Glu Leu Leu Ala Tyr
        195                 200                 205
Leu Tyr Ser Ser Ala Asp Gln Ser Ser Leu Met Glu Glu Ser Ala Asp
    210                 215                 220
Gln Ala Gln Arg Arg Asp Asp Met Leu Arg Met Tyr His Ala Leu Lys
225                 230                 235                 240
Glu Ala Leu Asn Ile Ile Gly Asp Ile Ser Thr Ser Thr Val Ser Thr
                245                 250                 255
Pro Val Pro Pro Pro Val Asp Asp Thr Trp Leu Gln Ser Ala Ser Ser
            260                 265                 270
His Ser Pro Thr Pro Gln Arg Arg Pro Val Ser Ser Ile His Pro Pro
        275                 280                 285
Gly Arg Pro Pro Ala Val Arg Gly Pro Thr Pro Gly Pro Pro Leu Ile
    290                 295                 300
Pro Val Pro Val Gly Ala Ala Ala Ser Phe Ser Ala Pro Pro Ile Pro
305                 310                 315                 320
Ser Arg Pro Gly Pro Gln Ser Val Phe Ala Asn Ser Asp Leu Phe Pro
                325                 330                 335
Ala Pro Pro Gln Ile Pro Ser Arg Pro Val Arg Ile Pro Pro Gly Ile
            340                 345                 350
Pro Pro Gly Val Pro Ser Arg Arg Pro Pro Ala Ala Xaa Ser Arg Pro
        355                 360                 365
Thr Ile Ile Arg Pro Ala Glu Pro Ser Leu Leu Asp
    370                 375                 380
```

<210> 83
<211> 229
<212> PRT
<213> Homo sapiens

<400> 83

```
Arg Lys Ala Pro Gly Gly Phe Met Gly Pro Arg Trp Arg Arg Arg Trp
  1               5                  10                  15
Phe Val Leu Lys Gly His Thr Leu Tyr Trp Tyr Arg Gln Pro Gln Asp
             20                  25                  30
Glu Lys Ala Glu Gly Leu Ile Asn Val Ser Asn Tyr Ser Leu Glu Ser
         35                  40                  45
Gly His Asp Gln Lys Lys Lys Tyr Val Phe Gln Leu Thr His Asp Val
     50                  55                  60
Tyr Lys Pro Phe Ile Phe Ala Ala Asp Thr Leu Thr Asp Leu Ser Met
 65                  70                  75                  80
Trp Val Arg His Leu Ile Thr Cys Ile Ser Lys Tyr Gln Ser Pro Gly
                 85                  90                  95
```

```
Arg Ala Pro Pro Pro Arg Glu Glu Asp Cys Tyr Ser Glu Thr Glu Ala
            100                 105                 110

Glu Asp Pro Asp Asp Glu Ala Gly Ser His Ser Ala Ser Pro Ser Pro
        115                 120                 125

Ala Gln Ala Gly Ser Pro Leu His Gly Asp Thr Ser Pro Ala Ala Thr
    130                 135                 140

Pro Thr Gln Arg Ser Pro Arg Thr Ser Phe Gly Ser Leu Thr Asp Ser
145                 150                 155                 160

Ser Glu Glu Ala Leu Glu Gly Met Val Arg Gly Leu Arg Gln Gly Gly
                165                 170                 175

Val Ser Leu Leu Gly Gln Pro Gln Pro Leu Thr Gln Glu Gln Trp Arg
            180                 185                 190

Ser Ser Phe Met Arg Arg Asn Arg Asp Pro Gln Leu Asn Glu Arg Val
        195                 200                 205

His Arg Val Arg Ala Leu Gln Ser Thr Leu Lys Val Ser Trp Gly Val
    210                 215                 220

Gly Thr Ala Arg Asp
225


<210> 84
<211> 119
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (116)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 84
Leu Arg Ala Gly Ser Leu Lys Tyr Ser Xaa Leu Gln Ala Glu Gly Asn
  1               5                  10                  15

Phe Asp Pro Ser Cys Cys Phe Thr Ile Tyr His Gly Asn His Met Glu
             20                  25                  30

Ser Leu Asp Leu Ile Thr Ser Asn Pro Glu Glu Ala Arg Thr Trp Ile
         35                  40                  45

Thr Gly Leu Lys Tyr Leu Met Ala Gly Ile Ser Asp Glu Asp Ser Leu
     50                  55                  60

Ala Lys Arg Gln Arg Thr His Asp Gln Trp Val Lys Gln Thr Phe Glu
 65                  70                  75                  80

Glu Ala Asp Lys Asn Gly Asp Gly Leu Leu Asn Ile Glu Glu Ile His
                 85                  90                  95
```

```
Gln Leu Met His Lys Leu Asn Val Asn Leu Pro Arg Arg Lys Val Xaa
            100                 105                 110

Gln Met Phe Xaa Glu Ala Asp
        115


<210> 85
<211> 257
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (212)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (231)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (236)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (238)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (256)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 85
Arg Gly Gly His Arg Leu Ser Gly Met Ala Ser Asn Phe Asn Asp Ile
  1               5                  10                  15

Val Lys Gln Gly Tyr Val Arg Ile Arg Ser Arg Arg Leu Gly Ile Tyr
             20                  25                  30

Gln Arg Cys Trp Leu Val Phe Lys Lys Ala Ser Ser Lys Gly Pro Lys
         35                  40                  45

Arg Leu Glu Lys Phe Ser Asp Glu Arg Ala Ala Tyr Phe Arg Cys Tyr
     50                  55                  60

His Lys Val Thr Glu Leu Asn Asn Val Lys Asn Val Ala Arg Leu Pro
 65                  70                  75                  80

Lys Ser Thr Lys Lys His Ala Ile Gly Ile Tyr Phe Asn Asp Asp Thr
                 85                  90                  95

Ser Lys Thr Phe Ala Cys Glu Ser Asp Leu Glu Ala Asp Glu Trp Cys
            100                 105                 110

Lys Val Leu Gln Met Glu Cys Val Gly Thr Arg Ile Asn Asp Ile Ser
        115                 120                 125

Leu Gly Glu Pro Asp Leu Leu Ala Thr Gly Val Glu Arg Glu Gln Ser
    130                 135                 140
```

Glu Arg Phe Asn Val Tyr Leu Met Pro Ser Pro Asn Leu Asp Val His
145 150 155 160

Gly Glu Cys Ala Leu Gln Ile Thr Tyr Glu Tyr Ile Cys Leu Trp Asp
165 170 175

Val Gln Asn Pro Arg Val Lys Leu Ile Ser Trp Pro Leu Ser Ala Leu
180 185 190

Arg Arg Leu Trp Asp Val Asp Thr Thr Trp Phe Thr Phe Glu Gly Arg
195 200 205

Glu Asp Val Xaa Arg Leu Gly Glu Gly Ala Val Tyr Leu Phe Arg Pro
210 215 220

Glu Thr Gly Arg Ala Ile Xaa Ser Gly Lys Ser Xaa Leu Xaa Ala Leu
225 230 235 240

Ala His Arg Pro Arg Gln Ala Arg Ala Phe Ala Asn Arg Val Leu Xaa
245 250 255

Lys

<210> 86
<211> 240
<212> PRT
<213> Homo sapiens

<400> 86
Glu Glu Leu Thr Leu Glu Ile Leu Asp Arg Arg Asn Val Gly Ile Arg
1 5 10 15

Glu Lys Asp Tyr Trp Thr Cys Phe Glu Val Asn Glu Arg Glu Glu Ala
20 25 30

Glu Arg Pro Leu His Phe Ala Glu Lys Val Leu Pro Ile Leu His Gly
35 40 45

Leu Gly Thr Asp Ser His Leu Val Val Lys Lys His Gln Ala Met Glu
50 55 60

Ala Met Leu Leu Tyr Leu Ala Ser Arg Val Gly Asp Thr Lys His Gly
65 70 75 80

Met Met Lys Phe Arg Glu Asp Arg Ser Leu Leu Gly Leu Gly Leu Pro
85 90 95

Ser Gly Gly Phe His Asp Arg Tyr Phe Ile Leu Asn Ser Ser Cys Leu
100 105 110

Arg Leu Tyr Lys Glu Val Arg Ser His Arg Pro Glu Lys Glu Trp Pro
115 120 125

Ile Lys Ser Leu Lys Val Tyr Leu Gly Val Lys Lys Lys Leu Arg Pro
130 135 140

Pro Thr Cys Trp Gly Phe Thr Val Val His Glu Thr Glu Lys His Glu
145 150 155 160

Lys Gln Gln Trp Tyr Leu Cys Cys Asp Thr Gln Met Glu Leu Arg Glu
165 170 175

Trp Phe Ala Thr Phe Leu Phe Val Gln His Asp Gly Leu Val Trp Pro
180 185 190

```
Ser Glu Pro Ser Arg Val Ser Arg Ala Val Pro Glu Val Arg Leu Gly
        195                 200                 205

Ser Val Ser Leu Ile Pro Leu Arg Gly Ser Glu Asn Glu Met Arg Arg
    210                 215                 220

Ser Val Ala Ala Phe Thr Ala Asp Pro Leu Ser Leu Leu Arg Asn Val
225                 230                 235                 240
```

<210> 87
<211> 94
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 87

```
Ser Asn Pro Pro Lys Ser Ser Ser Leu Ser Leu Ala Ser Ser Ala Ser
  1               5                  10                  15

Thr Ile Ser Ser Leu Ser Ser Leu Ser Pro Lys Lys Pro Thr Arg Xaa
            20                  25                  30

Val Asn Lys Ile His Ala Phe Gly Lys Arg Gly Asn Ala Leu Arg Arg
         35                  40                  45

Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln Asp
     50                  55                  60

Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser Gly
 65                  70                  75                  80

His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Arg Val Ser
                85                  90
```

<210> 88
<211> 76
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (73)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 88

```
Leu Phe Pro Leu Val Val Leu Arg Gly Asp Ala Gln Gly Ala Pro Pro
  1               5                  10                  15

Phe Lys Asn Trp Ile Met Asn Asn Phe Ile Leu Leu Xaa Glu Gln Leu
            20                  25                  30
```

```
Ile Lys Lys Ser Gln Gln Lys Arg Arg Thr Ser Pro Ser Asn Phe Lys
         35                  40                  45

Val Arg Phe Phe Val Leu Thr Lys Ala Ser Leu Ala Tyr Phe Glu Asp
     50                  55                  60

Arg His Gly Lys Lys Arg Thr Leu Xaa Gly Val His
 65                  70                  75


<210> 89
<211> 246
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (216)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 89
Val Arg Thr Glu His Thr Gly Glu Leu Gln Lys Glu Glu Ala Met Ala
  1               5                  10                  15

Ala Val Ile Leu Glu Ser Ile Phe Leu Lys Arg Ser Gln Gln Lys Lys
             20                  25                  30

Lys Thr Ser Pro Leu Asn Phe Lys Lys Arg Leu Phe Leu Leu Thr Val
         35                  40                  45

His Lys Leu Ser Tyr Tyr Glu Tyr Asp Phe Glu Arg Gly Arg Arg Gly
     50                  55                  60

Ser Lys Lys Gly Ser Ile Asp Val Glu Lys Ile Thr Cys Val Glu Thr
 65                  70                  75                  80

Val Val Pro Glu Lys Asn Pro Pro Pro Glu Arg Gln Ile Pro Arg Arg
                 85                  90                  95

Gly Glu Glu Ser Ser Glu Met Glu Gln Ile Ser Ile Ile Glu Arg Phe
            100                 105                 110

Pro Tyr Pro Phe Gln Val Val Tyr Asp Glu Xaa Pro Leu Tyr Val Phe
        115                 120                 125

Ser Pro Thr Glu Glu Leu Arg Lys Arg Trp Ile His Gln Leu Lys Asn
    130                 135                 140

Val Ile Arg Tyr Asn Ser Asp Leu Val Gln Lys Tyr His Pro Cys Phe
145                 150                 155                 160

Trp Ile Asp Gly Gln Tyr Leu Cys Cys Ser Gln Thr Ala Lys Asn Ala
                165                 170                 175

Met Gly Cys Gln Ile Leu Glu Asn Arg Asn Gly Ser Leu Lys Pro Gly
            180                 185                 190

Ser Ser His Arg Lys Thr Lys Lys Pro Leu Pro Pro Thr Pro Glu Glu
        195                 200                 205

Asp Gln Ile Leu Lys Lys Pro Xaa Pro Pro Glu Pro Ala Ala Ala Pro
```

```
    210                 215                 220

Val Ser Thr Ser Gly Ala Gly Lys Arg Leu Trp Pro Phe Met Asp Tyr
225                 230                 235                 240

Met Pro Met Asn Ala Lys
                245


<210> 90
<211> 68
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 90
Lys Phe Glu Ile Trp Tyr Asn Ala Arg Glu Glu Val Tyr Ile Val Gln
  1               5                  10                  15

Ala Pro Thr Pro Glu Ile Lys Ala Ala Trp Val Asn Glu Ile Arg Lys
             20                  25                  30

Val Leu Thr Ser Gln Leu Gln Ala Cys Arg Glu Ala Ser Gln His Arg
         35                  40                  45

Ala Leu Glu Gln Ser Xaa Ser Leu Pro Leu Pro Ala Pro Thr Ser Thr
     50                  55                  60

Ser Pro Ser Arg
 65


<210> 91
<211> 133
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 91
Gly Lys Arg Gly Asp Ser Pro Asp Pro Pro Ser Cys Ser Gln Ala Arg
  1               5                  10                  15

Ser Leu Thr Arg Tyr Leu Pro Ile Arg Lys Glu Asp Phe Xaa Leu Lys
             20                  25                  30

Thr His Ile Glu Ser Ser Gly His Gly Val Asp Thr Cys Xaa His Val
         35                  40                  45
```

Val Leu Ser Ser Lys Val Cys Arg Gly Tyr Leu Val Lys Met Gly Gly
50 55 60

Lys Ile Xaa Ser Trp Lys Lys Arg Trp Phe Val Phe Asp Arg Leu Lys
65 70 75 80

Arg Thr Leu Ser Tyr Tyr Val Asp Lys His Glu Thr Lys Leu Lys Gly
85 90 95

Val Ile Tyr Phe Gln Ala Ile Glu Glu Val Tyr Tyr Asp His Leu Arg
100 105 110

Ser Ala Ala Lys Ser Pro Asn Pro Ala Leu Thr Phe Cys Val Lys Thr
115 120 125

His Asp Arg Leu Tyr
130

<210> 92
<211> 137
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (97)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 92
His Glu Val Leu Phe Leu Gly Met Glu Glu Glu Met Val Arg Val Thr
1 5 10 15

Xaa Gly Arg Leu Thr Gly Asp Pro Asp Val Leu Glu Tyr Tyr Lys Asn
20 25 30

Asp His Ala Lys Lys Pro Ile Arg Ile Ile Asp Leu Asn Leu Cys Gln
35 40 45

Gln Val Asp Ala Gly Leu Thr Phe Asn Lys Lys Glu Phe Glu Asn Ser
50 55 60

Tyr Ile Phe Asp Ile Asn Thr Ile Asp Arg Ile Phe Tyr Leu Val Ala
65 70 75 80

Asp Ser Glu Glu Glu Met Asn Lys Trp Val Arg Cys Ile Cys Asp Ile
85 90 95

Xaa Gly Phe Asn Pro Thr Glu Glu Gly Lys Phe Lys Ile Leu Leu Phe
100 105 110

Xaa Leu Xaa Phe Phe Phe Ser Gly Tyr Ile Ser Arg Asn Val Ile Thr
115 120 125

Ile Leu Cys Tyr Phe Ser Tyr Thr Ile
130 135

<210> 93
<211> 304
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (210)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (253)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (275)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (284)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (286)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (290)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 93
Ser Ser Arg Ser Leu Met Glu Gln Gly Ile Gln Glu Asp Glu Gln Leu
1 5 10 15

Leu Tyr Asp Leu Xaa Tyr Tyr Ser Phe Phe Asp Leu Asn Pro Lys Tyr
20 25 30

Asp Ala Val Arg Ile Asn Gln Leu Tyr Glu Gln Ala Arg Trp Ala Ile
35 40 45

Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Leu Ile Phe Ala
50 55 60

Ala Leu Gln Tyr His Ile Ser Lys Leu Ser Leu Ser Ala Glu Thr Gln
65 70 75 80

Asp Phe Ala Gly Glu Ser Glu Val Asp Glu Ile Glu Ala Ala Leu Ser
85 90 95

Asn Leu Glu Val Thr Leu Glu Gly Gly Lys Ala Asp Ser Leu Leu Glu
100 105 110

Asp Ile Thr Asp Ile Pro Lys Leu Ala Asp Asn Leu Lys Leu Phe Arg
115 120 125

Pro Lys Lys Leu Leu Pro Lys Ala Phe Lys Gln Tyr Trp Phe Ile Phe
130 135 140

Lys Asp Thr Ser Ile Ala Tyr Phe Lys Asn Lys Glu Leu Glu Gln Gly
145 150 155 160

Glu Pro Leu Glu Lys Leu Asn Leu Arg Gly Cys Glu Val Val Pro Asp
165 170 175

Val Asn Val Ala Gly Arg Lys Phe Gly Ile Lys Leu Leu Ile Pro Val
180 185 190

Ala Asp Gly Met Asn Glu Met Tyr Leu Arg Cys Asp His Glu Asn Gln
195 200 205

Tyr Xaa Gln Trp Met Ala Ala Cys Met Leu Ala Ser Lys Gly Lys Thr
210 215 220

Met Ala Asp Ser Ser Tyr Gln Pro Glu Val Leu Asn Ile Leu Ser Phe
225 230 235 240

Leu Arg Met Lys Asn Arg Asn Ser Ala Ser Gln Val Xaa Ser Ser Leu
245 250 255

Glu Asn Met Asp Met Asn Pro Glu Trp Phe Gly Ser Pro Arg Cys Ala
260 265 270

Lys Arg Xaa Gln Ile Pro Asn Ser Leu Gly Pro Xaa Arg Xaa Pro Gly
275 280 285

Lys Xaa Ala Thr Gln Lys Pro Val Gly Pro Lys Asn Cys Pro Pro Trp
290 295 300

<210> 94
<211> 302
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (257)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (263)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (270)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (277)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (278)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 94
Asn Ser Ala Glu Val Asp Ser Ile Pro Lys Ser Leu Ser Asp Ser Leu
1 5 10 15

Ser Pro Ser Leu Ser Ser Gly Thr Leu Ser Thr Ser Thr Ser Ile Ser
20 25 30

Ser Gln Ile Ser Thr Thr Thr Phe Glu Ser Ala Ile Thr Pro Ser Glu
35 40 45

Ser Ser Gly Tyr Asp Ser Gly Asp Ile Glu Ser Leu Val Asp Arg Glu
50 55 60

Lys Glu Leu Ala Thr Lys Cys Leu Gln Leu Leu Thr His Thr Phe Asn
65 70 75 80

Arg Glu Phe Ser Gln Val His Gly Ser Val Ser Asp Cys Lys Leu Ser
85 90 95

Asp Ile Ser Pro Ile Gly Arg Asp Pro Ser Glu Ser Ser Phe Ser Ser
100 105 110

Ala Thr Leu Thr Pro Ser Ser Thr Cys Pro Ser Leu Val Asp Ser Arg
115 120 125

Ser Asn Ser Leu Asp Gln Lys Thr Pro Glu Ala Asn Ser Arg Ala Ser
130 135 140

Ser Pro Cys Pro Glu Phe Glu Gln Phe Gln Ile Val Pro Ala Val Glu
145 150 155 160

Thr Pro Tyr Leu Ala Arg Ala Gly Lys Asn Glu Phe Leu Asn Leu Val
165 170 175

Pro Asp Ile Glu Glu Ile Arg Pro Ser Ser Val Val Ser Lys Lys Gly
180 185 190

Tyr Leu His Phe Lys Glu Pro Leu Tyr Ser Asn Trp Ala Lys His Phe
195 200 205

Val Val Val Arg Arg Pro Tyr Val Phe Ile Tyr Asn Ser Asp Lys Asp
210 215 220

Pro Val Glu Arg Gly Ile Ile Asn Leu Ser Thr Ala Gln Val Glu Tyr
225 230 235 240

Ser Glu Asp Gln Gln Ala Met Val Lys Thr Pro Asn Thr Phe Ala Val
245 250 255

Xaa Thr Lys His Arg Gly Xaa Leu Leu Gln Ala Leu Asn Xaa Lys Asp
260 265 270

Met Asn Asp Trp Xaa Xaa Ala Phe Asn Pro Leu Leu Ala Gly Thr Ile
275 280 285

Arg Ser Lys Leu Ser Arg Arg Cys Pro Ser Gln Ser Lys Tyr
290 295 300

<210> 95
<211> 135
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95
Ala Glu Leu Gly Val Thr Glu His Val Glu Gly Asp Pro Cys Lys Phe
1 5 10 15

Ala Leu Trp Ser Gly Arg Thr Pro Ser Ser Asp Asn Lys Thr Val Leu
20 25 30

Lys Ala Ser Asn Ile Glu Thr Lys Gln Glu Trp Ile Lys Asn Ile Arg
35 40 45

Glu Val Ile Gln Glu Arg Ile Ile His Leu Lys Xaa Ala Leu Lys Glu
50 55 60

Pro Leu Gln Leu Pro Lys Thr Pro Ala Lys Gln Arg Asn Asn Ser Lys
65 70 75 80

Arg Asp Gly Val Glu Asp Ile Asp Ser Gln Gly Asp Gly Ser Ser Gln
85 90 95

Pro Asp Thr Ile Ser Ile Ala Ser Arg Thr Ser Gln Asn Thr Val Asp
100 105 110

Ser Asp Lys Asp Gly Asn Leu Val Pro Arg Trp His Leu Gly Pro Gly
115 120 125

Asp Pro Phe Ser Thr Tyr Val
130 135

<210> 96
<211> 492
<212> PRT
<213> Homo sapiens

<400> 96
Glu Glu Arg Val Ser Val Ala Gly Ala Ser Gly Thr Met Ser Asp Val
1 5 10 15

Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly Glu Tyr Ile Lys
20 25 30

Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp Gly Thr Phe Ile
35 40 45

Gly Tyr Lys Glu Arg Pro Gln Asp Val Asp Gln Arg Glu Ala Pro Leu
50 55 60

Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys Thr Glu Arg Pro
65 70 75 80

Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr Thr Val Ile
85 90 95

Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg Glu Glu Trp Thr
100 105 110

Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys Gln Glu Glu Glu
115 120 125

Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn Ser Gly Ala Glu
130 135 140

Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg Val Thr Met Asn
145 150 155 160

Glu Phe Glu Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly Lys Val
165 170 175

Ile Leu Val Lys Glu Lys Ala Thr Gly Arg Tyr Tyr Ala Met Lys Ile
180 185 190

Leu Lys Lys Glu Val Ile Val Ala Lys Asp Glu Val Ala His Thr Leu
195 200 205

Thr Glu Asn Arg Val Leu Gln Asn Ser Arg His Pro Phe Leu Thr Ala
210 215 220

Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe Val Met Glu
225 230 235 240

Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg Glu Arg Val
245 250 255

Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu Ile Val Ser Ala
260 265 270

Leu Asp Tyr Leu His Ser Glu Lys Asn Val Val Tyr Arg Asp Leu Lys
275 280 285

Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr Asp
290 295 300

Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys Thr
305 310 315 320

Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp Asn
325 330 335

Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met Tyr
340 345 350

Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu Lys
355 360 365

Leu Phe Glu Leu Ile Leu Met Glu Glu Ile Arg Phe Pro Arg Thr Leu
370 375 380

Gly Pro Glu Ala Lys Ser Leu Leu Ser Gly Leu Leu Lys Lys Asp Pro
385 390 395 400

Lys Gln Arg Leu Gly Gly Gly Ser Glu Asp Ala Lys Glu Ile Met Gln
405 410 415

His Arg Phe Phe Ala Gly Ile Val Trp Gln His Val Tyr Glu Lys Lys
420 425 430

Leu Ser Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp Thr Arg
435 440 445

Tyr Phe Asp Glu Glu Phe Thr Ala Gln Met Ile Thr Ile Thr Pro Pro
450 455 460

Asp Gln Asp Asp Ser Met Glu Cys Val Asp Ser Glu Arg Arg Pro His
465   470   475   480

Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Thr Ala
                485   490

<210> 97
<211> 254
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (244)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (248)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 97
Pro Thr Arg Pro Pro Thr Arg Pro Pro Thr Arg Pro Ser Arg Arg Gly
1   5   10   15

Ile Ala Val Ala Ser Trp Cys Ser Pro Arg Trp Phe Ala Gly Glu Glu
            20   25   30

Met Ala Phe Val Lys Ser Gly Trp Leu Leu Arg Gln Ser Thr Ile Leu
        35   40   45

Lys Arg Trp Lys Lys Asn Trp Phe Asp Leu Trp Ser Asp Gly His Leu
    50   55   60

Ile Tyr Tyr Asp Asp Gln Thr Arg Gln Asn Ile Glu Asp Lys Val His
65   70   75   80

Met Pro Met Asp Cys Ile Asn Ile Arg Thr Gly Gln Glu Cys Arg Asp
                85   90   95

Thr Gln Pro Pro Asp Gly Lys Ser Lys Asp Cys Met Leu Gln Ile Val
            100   105   110

Cys Arg Asp Gly Lys Thr Ile Ser Leu Cys Ala Glu Ser Thr Asp Asp
        115   120   125

Cys Leu Ala Trp Lys Phe Thr Leu Gln Asp Ser Arg Thr Asn Thr Ala
    130   135   140

Tyr Val Gly Ser Ala Val Met Thr Asp Glu Thr Ser Val Val Ser Ser
145   150   155   160

Pro Pro Pro Tyr Thr Ala Tyr Ala Ala Pro Ala Pro Glu Gln Ala Tyr
                165   170   175

Gly Tyr Gly Pro Tyr Gly Gly Ala Tyr Pro Pro Gly Thr Gln Val Val
            180   185   190

Tyr Ala Ala Asn Gly Gln Ala Tyr Ala Val Pro Tyr Gln Tyr Pro Tyr
        195   200   205

Ala Gly Leu Tyr Gly Gln Gln Pro Ala Asn Gln Val Ile Ile Arg Glu
    210   215   220

Arg Tyr Arg Asp Asn Asp Ser Asp Leu Ala Leu Gly Met Leu Ala Gly

225 230 235 240

Ala Ala Thr Xaa Met Ala Leu Xaa Ser Leu Phe Trp Val Phe
245 250

<210> 98
<211> 705
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (290)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 98
Met Ala Met Glu Lys Ser Lys Ala Thr Pro Ala Ala Arg Ala Ser Lys
1 5 10 15

Lys Ile Leu Leu Pro Glu Pro Ser Ile Arg Xaa Val Met Gln Lys Tyr
20 25 30

Leu Glu Asp Arg Gly Glu Val Thr Phe Glu Lys Ile Phe Ser Gln Lys
35 40 45

Leu Gly Tyr Leu Leu Phe Arg Asp Phe Cys Leu Asn His Leu Glu Glu
50 55 60

Ala Arg Pro Leu Val Glu Phe Tyr Glu Glu Ile Lys Lys Tyr Glu Lys
65 70 75 80

Leu Glu Thr Glu Glu Glu Arg Val Ala Arg Ser Arg Glu Ile Phe Asp
85 90 95

Ser Tyr Ile Met Lys Glu Leu Leu Ala Cys Ser His Pro Phe Ser Lys
100 105 110

Ser Ala Thr Glu His Val Gln Gly His Leu Gly Lys Lys Gln Val Pro
115 120 125

Pro Asp Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Gln Asn Leu Arg
130 135 140

Gly Asp Val Phe Gln Lys Phe Ile Glu Ser Asp Lys Phe Thr Arg Phe
145 150 155 160

Cys Gln Trp Lys Asn Val Glu Leu Asn Ile His Leu Thr Met Asn Asp
165 170 175

Phe Ser Val His Arg Ile Ile Gly Arg Gly Gly Phe Gly Glu Val Tyr
180 185 190

Gly Cys Arg Lys Ala Asp Thr Gly Lys Met Tyr Ala Met Lys Cys Leu
195 200 205

Asp Lys Lys Arg Ile Lys Met Lys Gln Gly Glu Thr Leu Ala Leu Asn
210 215 220

Glu Arg Ile Met Leu Ser Leu Val Ser Thr Gly Asp Cys Pro Phe Ile
225 230 235 240

Val Cys Met Ser Tyr Ala Phe His Thr Pro Asp Lys Leu Ser Phe Ile
245 250 255

Leu Asp Leu Met Asn Gly Gly Asp Leu His Tyr His Leu Ser Gln His
260 265 270

Gly Val Phe Ser Glu Ala Asp Met Arg Phe Tyr Ala Ala Glu Ile Ile
275 280 285

Leu Xaa Leu Glu His Met His Asn Arg Phe Val Val Tyr Arg Asp Leu
290 295 300

Lys Pro Ala Asn Ile Leu Leu Asp Glu His Gly His Val Arg Ile Ser
305 310 315 320

Asp Leu Gly Leu Ala Cys Asp Phe Ser Lys Lys Lys Pro His Ala Ser
325 330 335

Val Gly Thr Gln Gly Tyr Met Ala Pro Glu Val Leu Gln Lys Gly Val
340 345 350

Ala Tyr Asp Ser Ser Ala Asp Trp Phe Ser Leu Gly Cys Met Leu Phe
355 360 365

Lys Leu Leu Arg Gly His Ser Pro Phe Arg Gln His Lys Thr Lys Asp
370 375 380

Lys His Glu Ile Asp Arg Met Thr Leu Thr Met Ala Val Glu Leu Pro
385 390 395 400

Asp Ser Phe Ser Pro Glu Leu Arg Ser Leu Leu Glu Gly Leu Leu Gln
405 410 415

Arg Asp Val Asn Arg Arg Leu Gly Cys Leu Gly Arg Gly Ala Gln Glu
420 425 430

Val Lys Glu Ser Pro Phe Phe Arg Ser Leu Asp Trp Gln Met Val Phe
435 440 445

Leu Gln Lys Tyr Pro Pro Pro Leu Ile Pro Pro Arg Gly Glu Val Asn
450 455 460

Ala Ala Asp Ala Phe Asp Ile Gly Ser Phe Asp Glu Glu Asp Thr Lys
465 470 475 480

Gly Ile Lys Leu Leu Asp Ser Asp Gln Glu Leu Tyr Arg Asn Phe Pro
485 490 495

Leu Thr Ile Ser Glu Arg Trp Gln Gln Glu Val Ala Glu Thr Val Phe
500 505 510

Asp Thr Ile Asn Ala Glu Thr Asp Arg Leu Glu Ala Arg Lys Lys Ala
515 520 525

Lys Asn Lys Gln Leu Gly His Glu Glu Asp Tyr Ala Leu Gly Lys Asp
530 535 540

Cys Ile Met His Gly Tyr Met Ser Lys Met Gly Asn Pro Phe Leu Thr
545 550 555 560

Gln Trp Gln Arg Arg Tyr Phe Tyr Leu Phe Pro Asn Arg Leu Glu Trp
565 570 575

Arg Gly Glu Gly Glu Ala Pro Gln Ser Leu Leu Thr Met Glu Glu Ile
580 585 590

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Gln Ser Val Glu Glu Thr Gln Ile Lys Glu Arg Lys Cys Leu Leu Leu
        595                 600                 605

Lys Ile Arg Gly Gly Lys Gln Phe Ile Leu Gln Cys Asp Ser Asp Pro
    610                 615                 620

Glu Leu Val Gln Trp Lys Lys Glu Leu Arg Asp Pro Thr Ala Ser Pro
625                 630                 635                 640

Ala Ala Gly Ala Ala Gly Ala Gln Asp Glu Glu Gln Ala Ala Leu Ala
                645                 650                 655

Arg Gly Gly Ala Glu Gln Gly Ala Ala Gly Pro Ala Arg Gln Cys Gln
            660                 665                 670

Arg Pro Leu Thr Arg Pro Pro Ala Phe Tyr Lys Pro Leu Ile Tyr Phe
        675                 680                 685

Val Glu Phe Leu Leu Phe Val Phe Pro Pro Ser Gly Lys Gly Phe Ile
    690                 695                 700

Leu
705


<210> 99
<211> 558
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 99
Asp Leu Phe Ser Asp Val Leu Glu Glu Gly Glu Leu Asp Met Glu Lys
  1               5                  10                  15

Ser Gln Glu Glu Met Asp Gln Ala Leu Ala Glu Ser Ser Glu Glu Gln
            20                  25                  30

Glu Asp Ala Leu Asn Ile Ser Ser Met Ser Leu Leu Ala Pro Leu Ala
        35                  40                  45

Gln Thr Val Gly Val Val Ser Pro Glu Ser Leu Val Ser Thr Pro Arg
    50                  55                  60

Leu Glu Leu Lys Asp Thr Ser Arg Ser Asp Glu Ser Pro Lys Pro Gly
65                  70                  75                  80

Lys Phe Gln Arg Thr Arg Val Pro Arg Ala Glu Ser Gly Asp Ser Leu
                85                  90                  95

Gly Ser Glu Asp Arg Asp Leu Leu Tyr Ser Ile Asp Ala Tyr Arg Ser
            100                 105                 110

Gln Arg Phe Lys Glu Thr Glu Arg Pro Ser Ile Lys Xaa Val Ile Val
        115                 120                 125

Arg Lys Glu Asp Val Thr Ser Lys Leu Asp Glu Lys Asn Asn Ala Phe
    130                 135                 140

Pro Cys Gln Val Asn Ile Lys Gln Lys Met Gln Glu Leu Asn Asn Glu
145                 150                 155                 160
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Ile Asn Met Gln Gln Thr Val Ile Tyr Gln Ala Ser Gln Ala Leu Asn
165 170 175

Cys Cys Val Asp Glu Glu His Gly Lys Gly Ser Leu Glu Glu Ala Glu
180 185 190

Ala Glu Arg Leu Leu Leu Ile Ala Thr Gly Lys Arg Thr Leu Leu Ile
195 200 205

Asp Glu Leu Asn Lys Leu Lys Asn Glu Gly Pro Gln Arg Lys Asn Lys
210 215 220

Ala Ser Pro Gln Ser Glu Phe Met Pro Ser Lys Gly Ser Val Thr Leu
225 230 235 240

Ser Glu Ile Arg Leu Pro Leu Lys Ala Asp Phe Val Cys Ser Thr Val
245 250 255

Gln Lys Pro Asp Ala Ala Asn Tyr Tyr Tyr Leu Ile Ile Leu Lys Ala
260 265 270

Gly Ala Glu Asn Met Val Ala Thr Pro Leu Ala Ser Thr Ser Asn Ser
275 280 285

Leu Asn Gly Asp Ala Leu Thr Phe Thr Thr Thr Phe Thr Leu Gln Asp
290 295 300

Val Ser Asn Asp Phe Glu Ile Asn Ile Glu Val Tyr Ser Leu Val Gln
305 310 315 320

Lys Lys Asp Pro Ser Gly Leu Asp Lys Lys Lys Lys Thr Ser Lys Ser
325 330 335

Lys Ala Ile Thr Pro Lys Arg Leu Leu Thr Ser Ile Thr Thr Lys Ser
340 345 350

Asn Ile His Ser Ser Val Met Ala Ser Pro Gly Gly Leu Ser Ala Val
355 360 365

Arg Thr Ser Asn Phe Ala Leu Val Gly Ser Tyr Thr Leu Ser Leu Ser
370 375 380

Ser Val Gly Asn Thr Lys Phe Val Leu Asp Lys Val Pro Phe Leu Ser
385 390 395 400

Ser Leu Glu Gly His Ile Tyr Leu Lys Ile Lys Cys Gln Val Asn Ser
405 410 415

Ser Val Glu Glu Arg Gly Phe Leu Thr Ile Phe Glu Asp Val Ser Gly
420 425 430

Phe Gly Ala Trp His Arg Arg Trp Cys Val Leu Ser Gly Asn Cys Ile
435 440 445

Ser Tyr Trp Thr Tyr Pro Asp Asp Glu Lys Arg Lys Asn Pro Ile Gly
450 455 460

Arg Ile Asn Leu Ala Asn Cys Thr Ser Arg Gln Ile Glu Pro Ala Asn
465 470 475 480

Arg Glu Phe Cys Ala Arg Arg Asn Thr Phe Glu Leu Ile Thr Val Arg
485 490 495

Pro Gln Arg Glu Asp Asp Arg Glu Thr Leu Val Ser Gln Cys Arg Asp
500 505 510

Thr Leu Cys Val Thr Lys Asn Trp Leu Ser Ala Asp Thr Lys Glu Glu
515 520 525

Arg Asp Leu Trp Met Gln Lys Leu Asn Gln Val Leu Val Asp Ile Arg
530 535 540

Leu Trp Gln Pro Asp Ala Cys Tyr Lys Pro Ile Gly Lys Pro
545 550 555

<210> 100
<211> 122
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 100
Cys Ser Ser Ser Glu Met Pro Tyr Val Asp Arg Gln Asn Arg Ile Cys
1 5 10 15

Gly Phe Leu Asp Ile Glu Glu Asn Glu Asn Ser Gly Lys Phe Leu Arg
20 25 30

Arg Tyr Phe Ile Leu Asp Thr Arg Glu Asp Ser Phe Val Trp Tyr Met
35 40 45

Xaa Asn Pro Gln Asn Leu Pro Ser Gly Ser Ser Arg Val Gly Ala Ile
50 55 60

Lys Xaa Thr Tyr Ile Ser Lys Val Ser Asp Ala Thr Lys Leu Arg Pro
65 70 75 80

Lys Xaa Glu Phe Cys Phe Val Met Asn Ala Gly Met Arg Lys Tyr Phe
85 90 95

Leu Gln Ala Asn Asp Pro Ala Gly Pro Ser Gly Met Gly Lys Cys Val
100 105 110

Lys Gln Ser Tyr Lys Asn Phe Ser Thr Lys
115 120

<210> 101
<211> 348
<212> PRT
<213> Homo sapiens

<400> 101
Ala Asp Ala Trp Ala Asp Ala Trp Val Asn Asp Thr Val Val Pro Thr
1 5 10 15

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Ser Pro Ser Ala Asp Ser Thr Val Leu Leu Ala Pro Ser Val Gln Asp
                20                  25                  30

Ser Gly Ser Leu His Asn Ser Ser Ser Gly Glu Ser Thr Tyr Cys Met
            35                  40                  45

Pro Gln Asn Ala Gly Asp Leu Pro Ser Pro Asp Gly Asp Tyr Asp Tyr
        50                  55                  60

Asp Gln Asp Asp Tyr Glu Asp Gly Ala Ile Thr Ser Gly Ser Ser Val
    65                  70                  75                  80

Thr Phe Ser Asn Ser Tyr Gly Ser Gln Trp Ser Pro Asp Tyr Arg Cys
                85                  90                  95

Ser Val Gly Thr Tyr Asn Ser Ser Gly Ala Tyr Arg Phe Ser Ser Glu
            100                 105                 110

Gly Ala Gln Ser Ser Phe Glu Asp Ser Glu Glu Asp Phe Asp Ser Arg
        115                 120                 125

Phe Asp Thr Asp Asp Glu Leu Ser Tyr Arg Arg Asp Ser Val Tyr Ser
    130                 135                 140

Cys Val Thr Leu Pro Tyr Phe His Ser Phe Leu Tyr Met Lys Gly Gly
145                 150                 155                 160

Leu Met Asn Ser Trp Lys Arg Arg Trp Cys Val Leu Lys Asp Glu Thr
                165                 170                 175

Phe Leu Trp Phe Arg Ser Lys Gln Glu Ala Leu Lys Gln Gly Trp Leu
            180                 185                 190

His Lys Lys Gly Gly Gly Ser Ser Thr Leu Ser Arg Arg Asn Trp Lys
        195                 200                 205

Lys Arg Trp Phe Val Leu Arg Gln Ser Lys Leu Met Tyr Phe Glu Asn
    210                 215                 220

Asp Ser Glu Glu Lys Leu Lys Gly Thr Val Glu Val Arg Thr Ala Lys
225                 230                 235                 240

Glu Ile Ile Asp Asn Thr Thr Lys Glu Asn Gly Ile Asp Ile Ile Met
                245                 250                 255

Ala Asp Arg Thr Phe His Leu Ile Ala Glu Ser Pro Glu Asp Ala Ser
            260                 265                 270

Gln Trp Phe Ser Val Leu Ser Gln Val His Ala Ser Thr Asp Gln Glu
        275                 280                 285

Ile Gln Glu Met His Asp Glu Gln Ala Asn Pro Gln Asn Ala Val Gly
    290                 295                 300

Thr Leu Asp Val Gly Leu Ile Asp Ser Val Cys Ala Ser Asp Ser Pro
305                 310                 315                 320

Asp Arg Pro Asn Ser Phe Val Ile Ile Thr Ala Asn Arg Val Leu His
                325                 330                 335

Cys Asn Ala Asp Thr Pro Glu Arg Cys Thr Thr Gly
            340                 345
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<210> 102
<211> 128

<212> PRT
<213> Homo sapiens

<400> 102
Asp Pro Arg Val Arg Trp Ser Trp Glu Pro Phe Pro Ser Glu Gln Gln
1   5   10   15

Pro Cys Pro Ala Ser Val Leu Ser Ser Gln Gln Gly Lys Ser Ile Ser
            20   25   30

Leu Ile Met Glu Glu Asn Asn Asp Ser Thr Glu Asn Pro Gln Gln Gly
        35   40   45

Gln Gly Arg Gln Asn Ala Ile Lys Cys Gly Trp Leu Arg Lys Gln Gly
    50   55   60

Gly Phe Val Lys Thr Trp His Thr Arg Trp Phe Val Leu Lys Gly Asp
65   70   75   80

Gln Leu Tyr Tyr Ser Lys Met Lys Met Lys Pro Ser Pro Trp Val Leu
                85   90   95

Phe Phe Cys Leu Glu Ile Lys Phe Ser Glu His Pro Cys Asn Glu Glu
            100   105   110

Asn Pro Gly Lys Phe Leu Phe Glu Val Val Pro Gly Lys Ile Phe Ser
        115   120   125

<210> 103
<211> 143
<212> PRT
<213> Homo sapiens

<400> 103
His Ala Ser Asp His Leu Phe Phe Phe Ala Phe Ser Tyr Cys Trp Ser
1   5   10   15

Trp Glu Pro Phe Pro Ser Glu Gln Gln Pro Cys Pro Ala Ser Val Leu
            20   25   30

Ser Ser Gln Gln Gly Lys Ser Ile Ser Leu Ile Met Glu Glu Asn Asn
        35   40   45

Asp Ser Thr Glu Asn Pro Gln Gln Gly Gln Gly Arg Gln Asn Ala Ile
    50   55   60

Lys Cys Gly Trp Leu Arg Lys Gln Gly Gly Phe Val Lys Thr Trp His
65   70   75   80

Thr Arg Trp Phe Val Leu Lys Gly Asp Gln Leu Tyr Tyr Phe Lys Asp
                85   90   95

Glu Asp Glu Thr Lys Pro Leu Gly Thr Ile Phe Leu Pro Gly Asn Lys
            100   105   110

Val Ser Glu His Pro Cys Asn Glu Glu Asn Pro Gly Lys Phe Leu Phe
        115   120   125

Glu Val Val Pro Gly Arg Arg Ser Arg Ser Asp Asp Ser Lys Ser
    130   135   140

<210> 104
<211> 481
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (246)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (373)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (374)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (380)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (480)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 104
Gly Arg Trp Ala Ala Pro Ser Ser Arg Leu Ala Pro Gln Leu Pro Pro
1 5 10 15

Thr Thr Ala Ala Glu Arg Ser Trp Gly Leu Thr Arg Arg Leu Arg Gly
20 25 30

Leu Gly Pro Arg Arg Arg Gly Asp Leu Gly Gly Thr Gly Ser Leu Arg
35 40 45

Pro Ala Ser Leu Gly Ala Pro His Gly Ile Cys Arg Phe Thr Glu Trp
50 55 60

Leu His Ile Asn Gly Lys Arg Ser Ile Asn Leu Ser Ser Phe Ile Met
65 70 75 80

Glu Gly Gly Leu Ala Asp Gly Glu Pro Asp Arg Thr Ser Leu Leu Gly
85 90 95

Asp Ser Lys Asp Val Leu Gly Pro Ser Thr Val Val Ala Asn Ser Asp
100 105 110

Glu Ser Gln Leu Leu Thr Pro Gly Lys Met Ser Gln Arg Gln Gly Lys
115 120 125

Glu Ala Tyr Pro Thr Pro Thr Lys Asp Leu His Gln Pro Ser Leu Ser
130 135 140

Pro Ala Ser Pro His Ser Gln Gly Phe Glu Arg Gly Lys Glu Asp Ile
145 150 155 160

Ser Gln Asn Lys Asp Glu Ser Ser Leu Ser Met Ser Lys Ser Lys Ser
165 170 175

Glu Ser Lys Leu Tyr Asn Gly Ser Glu Lys Asp Ser Ser Thr Ser Ser
180 185 190

Lys Leu Thr Lys Lys Glu Ser Leu Lys Val Gln Lys Lys Asn Tyr Arg
195 200 205

Glu Glu Lys Lys Arg Ala Thr Lys Glu Leu Leu Ser Thr Ile Thr Asp
210 215 220

Pro Ser Val Ile Val Met Ala Asp Trp Leu Lys Ile Arg Gly Thr Leu
225 230 235 240

Lys Ser Trp Thr Lys Xaa Trp Cys Val Leu Lys Pro Gly Val Leu Leu
245 250 255

Ile Tyr Lys Thr Gln Lys Asn Gly Gln Trp Val Gly Thr Val Leu Leu
260 265 270

Asn Ala Cys Glu Ile Ile Glu Arg Pro Ser Lys Lys Asp Gly Phe Cys
275 280 285

Phe Lys Leu Phe His Pro Leu Glu Gln Ser Ile Trp Ala Val Lys Gly
290 295 300

Pro Lys Gly Glu Ala Val Gly Ser Ile Thr Gln Pro Leu Pro Ser Ser
305 310 315 320

Tyr Leu Ile Ile Arg Ala Thr Ser Glu Ser Asp Gly Arg Cys Trp Met
325 330 335

Asp Ala Leu Glu Leu Ala Leu Lys Cys Ser Ser Leu Leu Lys Arg Thr
340 345 350

Met Ile Arg Glu Gly Lys Glu His Asp Leu Ser Val Ser Ser Asp Ser
355 360 365

Thr His Val Thr Xaa Xaa Gly Leu Leu Arg Ala Xaa Asn Leu His Ser
370 375 380

Gly Asp Asn Phe Gln Leu Asn Asp Ser Glu Ile Glu Arg Gln His Phe
385 390 395 400

Lys Asp Gln Asp Met Tyr Ser Asp Lys Ser Asp Lys Glu Asn Asp Gln
405 410 415

Glu His Asp Glu Ser Asp Asn Glu Val Met Gly Lys Ser Glu Glu Ser
420 425 430

Asp Thr Asp Thr Ser Glu Arg Gln Asp Asp Ser Tyr Ile Glu Pro Glu
435 440 445

Pro Val Glu Pro Leu Lys Gly Asp Tyr Leu His Trp Asn Arg Ala Met
450 455 460

Glu Glu Leu Gly Glu Val Lys Val Cys Leu Phe Leu Glu Val Leu Xaa
465 470 475 480

Phe

<210> 105
<211> 131
<212> PRT
<213> Homo sapiens

<400> 105
Pro Gly Ser His Thr Ile Leu Arg Arg Ser Gln Ser Tyr Ile Pro Thr

```
1               5                   10                  15

Ser Gly Cys Arg Ala Ser Thr Gly Pro Pro Leu Ile Lys Ser Gly Tyr
            20                  25                  30

Cys Val Lys Gln Gly Asn Val Arg Lys Ser Trp Lys Arg Arg Phe Phe
        35                  40                  45

Ala Leu Asp Asp Phe Thr Ile Cys Tyr Phe Lys Cys Glu Gln Asp Arg
    50                  55                  60

Glu Pro Leu Arg Thr Ile Phe Leu Lys Asp Val Leu Lys Thr His Glu
65                  70                  75                  80

Cys Leu Val Lys Ser Gly Asp Leu Leu Met Arg Asp Asn Leu Phe Glu
                85                  90                  95

Ile Ile Thr Ser Ser Arg Thr Phe Tyr Val Gln Ala Asp Ser Pro Glu
            100                 105                 110

Asp Met His Ser Trp Ile Lys Glu Ile Gly Ala Ala Val Gln Ala Leu
        115                 120                 125

Lys Cys His
    130
```

<210> 106
<211> 91
<212> PRT
<213> Homo sapiens

<400> 106

```
Gln Asn Leu Leu Thr Met Glu Gln Ile Leu Ser Val Glu Glu Thr Gln
1               5                   10                  15

Ile Lys Asp Lys Lys Cys Ile Leu Phe Arg Ile Lys Gly Gly Lys Gln
            20                  25                  30

Phe Val Leu Gln Cys Glu Ser Asp Pro Glu Phe Val Gln Trp Lys Lys
        35                  40                  45

Glu Leu Asn Glu Thr Phe Lys Glu Ala Gln Arg Leu Leu Arg Arg Ala
    50                  55                  60

Pro Lys Phe Leu Asn Lys Pro Arg Ser Gly Thr Val Glu Leu Pro Lys
65                  70                  75                  80

Pro Ser Leu Cys His Arg Asn Ser Asn Gly Leu
                85                  90
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<210> 107
<211> 123
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 107
Gly Val Tyr Met Ala Thr Phe Tyr Glu Phe Phe Asn Glu Gln Lys Tyr
1 5 10 15

Ala Asp Ala Val Lys Asn Phe Leu Asp Leu Ile Ser Ser Ser Gly Arg
20 25 30

Arg Asp Pro Lys Ser Val Glu Gln Pro Ile Val Leu Lys Glu Gly Phe
35 40 45

Met Ile Lys Arg Ala Gln Gly Arg Lys Arg Phe Gly Met Lys Asn Phe
50 55 60

Lys Lys Arg Trp Phe Arg Leu Thr Asn His Gly Ile Tyr Leu Pro Gln
65 70 75 80

Lys Gln Arg Gly Pro Ala Ser Leu Gln His Ser His Arg Gly Thr Ser
85 90 95

Trp Ala Val Glu Glu Ala Xaa Gly Gly Ser Val Phe Lys Met Glu Lys
100 105 110

Xaa Val Ser Arg Xaa Ile Pro Val Gln Ser Val
115 120

<210> 108
<211> 155
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (140)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 108
Arg Trp Ala Ala Val Pro Cys Arg Arg Ala Leu Leu Leu Cys Asn Gly
1 5 10 15

Met Arg Tyr Lys Leu Leu Gln Glu Gly Asp Ile Gln Val Cys Val Ile
20 25 30

Arg His Pro Arg Thr Phe Leu Ser Lys Ile Leu Thr Ser Lys Phe Leu
35 40 45

Arg Arg Trp Glu Pro His His Leu Thr Leu Ala Asp Asn Ser Leu Ala
50 55 60

Ser Ala Thr Pro Thr Gly Tyr Met Glu Asn Ser Val Ser Tyr Ser Ala
65 70 75 80

Ile Glu Asp Val Gln Leu Leu Ser Trp Glu Asn Ala Pro Lys Tyr Cys
85 90 95

Leu Gln Leu Thr Ile Pro Gly Gly Thr Val Leu Leu Gln Ala Ala Asn
100 105 110

Ser Tyr Leu Arg Asp Gln Trp Phe His Ser Leu Gln Trp Lys Lys Lys
115 120 125

Ile Tyr Lys Tyr Lys Lys Val Leu Ser Asn Pro Xaa Arg Trp Glu Xaa
130 135 140

Val Leu Lys Glu Ile Arg Thr Leu Val Asp Ile
145 150 155

<210> 109
<211> 119
<212> PRT
<213> Homo sapiens

<400> 109
Leu Tyr Gly Cys Glu Lys Thr Thr Glu Gly Asp Glu Asn Arg Ser Phe
1 5 10 15

Glu Gly Thr Leu Tyr Lys Arg Gly Ala Leu Leu Lys Gly Trp Lys Pro
20 25 30

Arg Trp Phe Val Leu Asp Val Thr Lys His Gln Leu Arg Tyr Tyr Asp
35 40 45

Ser Gly Glu Asp Thr Ser Cys Lys Gly His Ile Asp Leu Ala Glu Val
50 55 60

Glu Met Val Ile Pro Ala Gly Pro Ser Met Gly Ala Pro Lys His Thr
65 70 75 80

Ser Asp Lys Ala Phe Phe Asp Leu Lys Thr Ser Lys Arg Val Tyr Asn
85 90 95

Phe Cys Ala Gln Asp Gly Gln Ser Ala Gln Gln Trp Met Asp Lys Ile
100 105 110

Gln Ser Cys Ile Ser Asp Ala
115

<210> 110
<211> 455
<212> PRT
<213> Homo sapiens

<400> 110
His Arg Thr Lys Gly Arg Val Phe Ser Ala Leu Arg Thr Gly Ala Glu
1 5 10 15

Glu Ala Ala Val Ala Pro Gly Ala Phe Glu Arg Ala His Pro Ser Pro
20 25 30

Arg Ala Asn Ala Asp Pro Gly Pro Thr Gly Gly Thr Ala Pro Asp Ser
35 40 45

Pro Arg Ala Phe Leu Ala Ala Met Glu Asp Gly Val Tyr Glu Pro Pro
50 55 60

Asp Leu Thr Pro Glu Glu Arg Met Glu Leu Glu Asn Ile Arg Arg Arg
65 70 75 80

Lys Gln Glu Leu Leu Val Glu Ile Gln Arg Leu Arg Glu Glu Leu Ser

```
                85                  90                  95

Glu Ala Met Ser Glu Val Glu Gly Leu Glu Ala Asn Glu Gly Ser Lys
            100                 105                 110

Thr Leu Gln Arg Asn Arg Lys Met Ala Met Gly Arg Lys Lys Phe Asn
        115                 120                 125

Met Asp Pro Lys Lys Gly Ile Gln Phe Leu Val Glu Asn Glu Leu Leu
    130                 135                 140

Gln Asn Thr Pro Glu Glu Ile Ala Arg Phe Leu Tyr Lys Gly Glu Gly
145                 150                 155                 160

Leu Asn Lys Thr Ala Ile Gly Asp Tyr Leu Gly Glu Arg Glu Glu Leu
                165                 170                 175

Asn Leu Ala Val Leu His Ala Phe Val Asp Leu His Glu Phe Thr Asp
            180                 185                 190

Leu Asn Leu Val Gln Ala Leu Arg Gln Phe Leu Trp Ser Phe Arg Leu
        195                 200                 205

Pro Gly Glu Ala Gln Lys Ile Asp Arg Met Met Glu Ala Phe Ala Gln
    210                 215                 220

Arg Tyr Cys Leu Cys Asn Pro Gly Val Phe Gln Ser Thr Asp Thr Cys
225                 230                 235                 240

Tyr Val Leu Ser Phe Ala Val Ile Met Leu Asn Thr Ser Leu His Asn
                245                 250                 255

Pro Asn Val Arg Asp Lys Pro Gly Leu Glu Arg Phe Val Ala Met Asn
            260                 265                 270

Arg Gly Ile Asn Glu Gly Gly Asp Leu Pro Glu Glu Leu Leu Arg Asn
        275                 280                 285

Leu Tyr Asp Ser Ile Arg Asn Glu Pro Phe Lys Ile Pro Glu Asp Asp
    290                 295                 300

Gly Asn Asp Leu Thr His Thr Phe Phe Asn Pro Asp Arg Glu Gly Trp
305                 310                 315                 320

Leu Leu Lys Leu Gly Gly Gly Arg Val Lys Thr Trp Lys Arg Arg Trp
                325                 330                 335

Phe Ile Leu Thr Asp Asn Cys Leu Tyr Tyr Phe Glu Tyr Thr Thr Asp
            340                 345                 350

Lys Glu Pro Arg Gly Ile Ile Pro Leu Glu Asn Leu Ser Ile Arg Glu
        355                 360                 365

Val Asp Asp Pro Arg Lys Pro Asn Cys Phe Glu Leu Tyr Ile Pro Asn
    370                 375                 380

Asn Lys Gly Gln Leu Ile Lys Ala Cys Lys Thr Glu Ala Asp Gly Arg
385                 390                 395                 400

Val Val Glu Gly Asn His Met Val Tyr Arg Ile Ser Ala Pro Thr Gln
                405                 410                 415

Glu Glu Lys Asp Glu Trp Ile Lys Ser Ile Gln Ala Ala Val Ser Val
            420                 425                 430

Asp Pro Phe Tyr Glu Met Leu Ala Ala Arg Lys Lys Arg Ile Ser Val
```

435 440 445

Lys Lys Lys Gln Glu Gln Pro
450 455

<210> 111
<211> 87
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 111
Lys Arg Arg Pro Thr Ala Thr Ser Ala Cys Arg Gly Gly Pro Ala Ala
1 5 10 15

Glu Arg Ser Cys Leu Arg Val Thr Phe Ala Ser Ala Cys Pro Ala Ser
20 25 30

Met Glu Pro Lys Arg Ile Arg Glu Gly Tyr Leu Val Lys Lys Gly Ser
35 40 45

Val Phe Asn Thr Trp Lys Pro Met Trp Val Val Leu Leu Glu Asp Gly
50 55 60

Ile Glu Phe Tyr Lys Xaa Xaa Ser Asp Asn Ser Pro Lys Gly Met Xaa
65 70 75 80

Pro Leu Lys Gly Ser Thr Leu
85

<210> 112
<211> 592
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (96)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (296)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (306)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (313)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (589)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (591)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 112

```
Gln Glu Cys Arg Gly Ile Arg Ala Ala Ser Ala Ser Ala Gln Glu Leu
  1               5                  10                  15

Ala Thr Ser Leu Lys Thr Glu Gly Thr Val Gly Gly Gly Thr Val Gly
             20                  25                  30

Gln Cys Gly Thr Tyr Leu Ser Pro Leu Trp Arg Gly Xaa Thr Arg Glu
         35                  40                  45

Arg Ala Pro Xaa Gly Thr Glu Met Gln Asp Arg Leu His Ile Leu Glu
     50                  55                  60

Asp Leu Asn Met Leu Tyr Ile Arg Gln Met Ala Leu Ser Asp Leu Pro
 65                  70                  75                  80

Glu Asp Thr Glu Leu Gln Arg Lys Leu Asp His Glu Ile Arg Met Xaa
                 85                  90                  95

Glu Gly Ala Cys Lys Leu Leu Ala Xaa Cys Ser Gln Arg Glu Gln Ala
            100                 105                 110

Leu Glu Ala Thr Lys Ser Leu Leu Val Cys Asn Ser Arg Ile Leu Ser
        115                 120                 125

Tyr Met Gly Glu Leu Gln Arg Arg Lys Glu Ala Gln Val Leu Gly Lys
    130                 135                 140

Thr Ser Arg Arg Pro Ser Asp Ser Gly Pro Pro Ala Glu Arg Ser Pro
145                 150                 155                 160

Cys Arg Gly Arg Val Cys Ile Ser Asp Leu Arg Ile Pro Leu Met Trp
                165                 170                 175

Lys Asp Thr Glu Tyr Phe Lys Asn Lys Gly Asp Leu His Arg Trp Ala
            180                 185                 190
```

Val Phe Leu Leu Leu Gln Leu Gly Glu His Ile Gln Asp Thr Glu Met
195 200 205

Ile Leu Val Asp Arg Thr Leu Thr Asp Ile Ser Phe Gln Ser Asn Val
210 215 220

Leu Phe Ala Glu Ala Gly Pro Asp Phe Glu Leu Arg Leu Glu Leu Tyr
225 230 235 240

Gly Ala Cys Val Glu Glu Glu Gly Ala Leu Thr Gly Gly Pro Lys Arg
245 250 255

Leu Ala Thr Lys Leu Ser Ser Ser Leu Gly Arg Ser Ser Gly Arg Arg
260 265 270

Val Arg Ala Ser Leu Asp Ser Ala Gly Gly Ser Gly Ser Ser Pro Ile
275 280 285

Leu Leu Pro Thr Pro Val Val Xaa Gly Pro Arg Tyr His Leu Leu Ala
290 295 300

His Xaa Thr Leu Thr Leu Ala Ala Xaa Gln Asp Gly Phe Arg Thr His
305 310 315 320

Asp Leu Thr Leu Ala Ser His Glu Glu Asn Pro Ala Trp Leu Pro Leu
325 330 335

Tyr Gly Ser Val Cys Cys Arg Leu Ala Ala Gln Pro Leu Cys Met Thr
340 345 350

Gln Pro Thr Ala Ser Gly Thr Leu Arg Val Gln Gln Ala Gly Glu Met
355 360 365

Gln Asn Trp Ala Gln Val His Gly Val Leu Lys Gly Thr Asn Leu Phe
370 375 380

Cys Tyr Arg Gln Pro Glu Asp Ala Asp Thr Gly Glu Glu Pro Leu Leu
385 390 395 400

Thr Ile Ala Val Asn Lys Glu Thr Arg Val Arg Ala Gly Glu Leu Asp
405 410 415

Gln Ala Leu Gly Arg Pro Phe Thr Leu Ser Ile Ser Asn Gln Tyr Gly
420 425 430

Asp Asp Glu Val Thr His Thr Leu Gln Thr Glu Ser Arg Glu Ala Leu
435 440 445

Gln Ser Trp Met Glu Ala Leu Trp Gln Leu Phe Phe Asp Met Ser Gln
450 455 460

Trp Lys Gln Cys Cys Asp Glu Ile Met Lys Ile Glu Thr Pro Ala Pro
465 470 475 480

Arg Lys Pro Pro Gln Ala Leu Ala Lys Gln Gly Ser Leu Tyr His Glu
485 490 495

Met Ala Ile Glu Pro Leu Asp Asp Ile Ala Ala Val Thr Asp Ile Leu
500 505 510

Thr Gln Arg Arg Ala Gln Gly Trp Arg His Pro His Pro Gly Trp Gln
515 520 525

Cys Leu Gln Thr Ser Leu Pro Cys Leu Thr Pro Ala Arg Leu Pro Gln
530 535 540

```
Trp Pro Gln Pro Gln Thr Gly Pro Thr Pro Cys Pro Gly Gly Asp Pro
545                 550                 555                 560

Glu Pro Phe Pro Trp Met Leu Ser Pro Gln Thr Thr Pro Leu Gly Leu
                565                 570                 575

Ala Arg Leu Pro Pro Ser His Leu Ser Asp Pro His Xaa Pro Xaa Ala
            580                 585                 590
```

<210> 113
<211> 55
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 113

```
Gln Ser Gly Thr Ser Lys Asp Glu Asn Ser Ile Ile Phe Ala Ala Lys
  1               5                  10                  15

Ser Ala Glu Glu Lys Asn Asn Trp Met Ala Ala Leu Ile Ser Leu His
            20                  25                  30

Tyr Arg Ser Thr Leu Asp Arg Met Leu Asp Ser Val Leu Leu Lys Glu
        35                  40                  45

Glu Asn Xaa Ala Thr Thr Glu
     50                  55
```

<210> 114
<211> 213
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 114
Tyr Xaa Arg Ile Asp Trp Pro Asn Xaa Leu Val Phe Ile Val Lys Thr
1 5 10 15

Xaa Ser Arg Thr Phe Tyr Leu Val Ala Lys Thr Glu Gln Glu Met Gln
20 25 30

Val Trp Val His Ser Ile Ser Gln Val Cys Asn Leu Gly His Leu Glu
35 40 45

Asp Gly Ala Asp Ser Met Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu
50 55 60

Gln Pro Ser Ser Ala Ser Ser Leu Leu Thr Ala His Ala Ala Xaa Xaa
65 70 75 80

Ser Leu Pro Arg Asp Xaa Pro Asn Thr Asn Ala Val Ala Thr Glu Glu
85 90 95

Thr Arg Ser Glu Ser Glu Leu Leu Phe Leu Pro Asp Tyr Leu Val Leu
100 105 110

Ser Asn Cys Glu Thr Gly Arg Leu His His Thr Ser Leu Pro Thr Arg
115 120 125

Cys Asp Ser Trp Ser Asn Ser Asp Arg Ser Leu Glu Gln Ala Ser Phe
130 135 140

Asp Asp Val Phe Val Asp Cys Leu Gln Pro Leu Pro Ser Ser His Leu
145 150 155 160

Val His Pro Ser Cys His Gly Ser Gly Ala Gln Glu Val Pro Ser Ser
165 170 175

Arg Pro Gln Ala Ala Leu Ile Trp Ser Arg Glu Ile Asn Gly Pro Pro
180 185 190

Arg Gly Pro Leu Val Phe Phe Thr Ile Ala Gly Lys Phe Leu Lys Phe
195 200 205

His His Ser Gly Arg
210

<210> 115
<211> 153
<212> PRT
<213> Homo sapiens

<400> 115
Leu Thr Ser Gly Phe Leu Ser Gly Tyr Gly Ile Ser Val Trp Val Ile
1 5 10 15

Ser Trp Gln Arg Gly Ala Gly Ser Met Gly Gly Lys Lys Gly Ala Gly
20 25 30

Arg Gly Trp Leu Gln Gly Gly Gly Arg Val Arg Glu Ala Leu His Gly
35 40 45

Ile Cys Thr Ile Leu Gln Val Ala Lys Val Ala Asp Leu Thr Asp Ala
50 55 60

Val His Pro His Leu His Phe Leu Leu Ser Phe Gly His Gln Val Glu
65 70 75 80

Cys Thr Gly Ser Ser Leu Asp Asn Glu His Glu Ile Ile Leu Lys Phe
85 90 95

Leu Pro Asn Lys Ala Gly Ala His Met Leu Pro His Cys Thr Leu Ala
100 105 110

Glu Val Tyr His Pro Asp Gly Leu Ala Gly Val Leu Val Pro Val Val
115 120 125

Leu Gln Asp Ile Gly Val Ala Ala His Ala Ala Ser Pro Glu Asp Lys
130 135 140

Pro Ala Leu Ala Pro Gly Val Ala Leu
145 150

<210> 116
<211> 321
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (271)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (285)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 116
Val Lys Val Arg Leu Ile Glu Asp Arg Val Leu Pro Ser Gln Cys Tyr
1 5 10 15

Gln Pro Leu Met Glu Leu Leu Met Glu Ser Val Gln Gly Pro Ala Glu
20 25 30

Glu Asp Thr Ala Ser Pro Leu Ala Leu Leu Glu Glu Leu Thr Leu Gly
35 40 45

Asp Cys Arg Gln Asp Leu Ala Thr Lys Leu Val Lys Leu Phe Leu Gly
50 55 60

Arg Gly Leu Ala Gly Arg Phe Leu Asp Tyr Leu Thr Arg Arg Glu Val
65 70 75 80

Ala Arg Thr Met Asp Pro Asn Thr Leu Phe Arg Ser Asn Ser Leu Ala
85 90 95

Ser Lys Ser Met Glu Gln Phe Met Lys Leu Val Gly Met Pro Tyr Leu
100 105 110

His Glu Val Leu Lys Pro Val Ile Ser Arg Val Phe Glu Glu Lys Lys
115 120 125

Tyr Met Glu Leu Asp Pro Cys Lys Met Asp Leu Gly Pro His Pro Glu
130 135 140

Asp Leu Leu Gln Arg Arg Thr Leu Gly Gly Ala Asp Ala Gly Asp Gln

```
145                 150                 155                 160

Pro Gly Ala Ala Asp Gly Leu Leu Gly Pro Ile Val Asp Ala Ile Val
                165                 170                 175

Gly Ser Val Gly Arg Cys Pro Pro Ala Met Arg Leu Ala Phe Lys Gln
            180                 185                 190

Leu His Arg Arg Val Glu Glu Arg Phe Pro Gln Ala Glu His Gln Asp
        195                 200                 205

Val Lys Tyr Leu Ala Ile Ser Gly Phe Leu Phe Leu Arg Phe Phe Ala
    210                 215                 220

Pro Ala Ile Leu Thr Pro Lys Leu Phe Asp Leu Arg Asp Gln His Ala
225                 230                 235                 240

Asp Pro Gln Thr Ser Arg Ser Leu Leu Leu Leu Ala Lys Met Cys His
                245                 250                 255

Ser Ile Pro Val Ser His Ile Arg Ala Val Glu Arg Val Asp Xaa Gly
            260                 265                 270

Ala Phe Gln Leu Pro His Val Met Gln Val Val Thr Xaa Asp Gly Thr
        275                 280                 285

Gly Ala Leu His Thr Thr Tyr Leu Gln Cys Lys Asn Val Asn Glu Leu
    290                 295                 300

Asn Gln Trp Leu Ser Ala Leu Arg Lys Ala Ser Ala Pro Asn Pro Asn
305                 310                 315                 320

Leu
```

<210> 117
<211> 117
<212> PRT
<213> Homo sapiens

<400> 117

```
Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro
  1               5                  10                  15

Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val
            20                  25                  30

Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr
        35                  40                  45

Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu
    50                  55                  60

Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe
65                  70                  75                  80

Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr
                85                  90                  95

Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile
            100                 105                 110

Ser Gln Val Cys Asn
        115
```

<210> 118
<211> 15
<212> PRT
<213> Homo sapiens

<400> 118
Ser Asn Thr Pro Pro Pro Arg Pro Pro Lys Pro Ser His Leu Ser
1 5 10 15

<210> 119
<211> 13
<212> PRT
<213> Homo sapiens

<400> 119
Pro Cys Arg Phe Ser Pro Met Tyr Pro Thr Ala Ser Ala
1 5 10

<210> 120
<211> 13
<212> PRT
<213> Homo sapiens

<400> 120
Ser Tyr Val Pro Met Ser Pro Gln Ala Gly Ala Ser Gly
1 5 10

<210> 121
<211> 13
<212> PRT
<213> Homo sapiens

<400> 121
Ser Ile Ser Ser Pro Leu Pro Glu Leu Pro Ala Asn Leu
1 5 10

<210> 122
<211> 14
<212> PRT
<213> Homo sapiens

<400> 122
Lys Phe Ser Leu Asp Tyr Leu Ala Leu Asp Phe Asn Ser Ala
1 5 10

<210> 123
<211> 12
<212> PRT
<213> Homo sapiens

<400> 123
Arg Val Asp Tyr Val Gln Val Asp Glu Gln Lys Thr
1 5 10

<210> 124
<211> 12
<212> PRT
<213> Homo sapiens

<400> 124
Ser Pro Asp Asp Tyr Ile Pro Met Asn Ser Gly Ser
1 5 10

<210> 125
<211> 11
<212> PRT
<213> Homo sapiens

<400> 125
Ser Tyr Ile Glu Met Glu Glu His Arg Thr Ala
1 5 10

<210> 126
<211> 30
<212> DNA
<213> Homo sapiens

<400> 126
acgtggatcc ccgagagtct ctctcacatg 30

<210> 127
<211> 34
<212> DNA
<213> Homo sapiens

<400> 127
atatatatat ctcgaggggt gaagctgtgg gata 34

<210> 128
<211> 20
<212> DNA
<213> Homo sapiens

<400> 128
cccatcacca tcttccagga 20

<210> 129
<211> 20
<212> DNA
<213> Homo sapiens

<400> 129
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35 40 45

Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu
50 55 60

Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe
65 70 75 80

Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr
85 90 95

Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile
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115 120 125

Glu Ser Leu Ser
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Ala Ser Pro Ala Pro Met Gln Gln Lys Leu Leu Leu Ser Glu Glu Gln
20 25 30

Arg Val Asp Tyr Val Gln Val Asp Glu Gln Lys Thr Gln Ala Leu Gln
35 40 45

Ser Thr Lys Gln Glu Trp Thr Asp Glu Arg Gln Ser Lys Val
50 55 60